

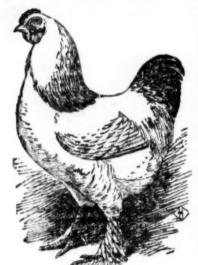


nomic question, it ster for the ordinary dunghill fowls.

tendency to encourage the farmers and the pure strains. Even though the still more productive and more profit-

dard of dollars and cents is the one that should determine its value, as its sentimental phase will not in all cases be an ber of farmers who are breeding good incentive sufficiently strong to lead us strains of fancy poultry who claim to onward to success. Yet it is but fair realize a larger net income from that and proper to state that many of the source than from the leading crop most prosperous and successful breeders of cereals on the same farm. Where of fancy poultry were lured into the business by its sentimental features; that is, possessing the proud distinction of owning and breeding the best thoroughbred stock in a community, and thus not alone realizing self-satisfaction as its fruit, but also succeeding in gaining reward in a pecuniary sense.

Success is not an accident, however, and in the poultry yard we receive as we give-give our poultry careful, intelliattention, proper food and shelter,



and the reply to the question, "does poultry raising pay?" will invariably be given in the affirmative. It is the too general prevalence of these opposite conditions that result in the absolute failure and consequent financial loss that very often cast odium upon this branch of agriculture. The stability of the poultry industry is fixed upon the basis of the progressive civilization of the age, and in this era of general prosperity and with the present improved and excellent strains of poultry, there are comparatively few causes to operate against our efforts to succeed.

If we could but realize for a moment the many thousands of dollars that have been made by the farmers of Pennsyl vania from this source within the past decade, we would observe a row of namerals that would not alone be startling in its magnitude, but also extremely gratifying. There are too many farmers who fare sumptuously on eggs in their various palatable forms who never for a moment take time to think how much money they would necessarily expend were they obliged to purchase this same, healthful, strength-giving food. While the average farmer may claim that the hens are an unprofitable adjunct of the farm, the speaker is inclined to the belief that were their owner to keep a strict account, they would soon learn that poultry raising pays, and in all likelihood they will be surprised to learn that no other live stock on the farm has yielded such pended. This point will be especially strongly and clearly proven in the present epoch of unusually low prices for wheat

One of the most encouraging signs of the times consists in the fact that many farmers are disposing of the old, antique,

owner will have sale for breeding birds DISCUSSING at prices more than five times in excess this important eco- of those before realized from the huck-

is not my purpose to mislead or deceive. The principal object in view Good crosses of thoroughbred fowls are becoming common on nearly every farm. It is conceded that they may be stronger and healthier than the so-called Good crosses of thoroughbred fowls is the presentation "blue-blooded" stock, but the speaker of such facts that will have a natural has always realized the best returns from breeders in making the poultry industry purity of the breed may not enhance their value in the eyes of the indifferent ble.

In measuring any industry, the stan
purchaser, yet the increase in weight, if sold to the huckster, will materially and intelligence and patient toil are incorporated into this fascinating industry, failures are comparatively rare.

The speaker would not, however, advise the inexperienced to start into this business upon a large scale. Let the commencement be made upon a conservative footing, and as you become more familiar with the intricacies and mysteries of the poultry breeder, you can expand your yards and increase the number of your feathered pets; and unless you have learned to regard them as pets, after a year's experience in the business, you will hardly ever succeed as a poultry fancier. It is a science that is not learned in a single day.

With the development of large and mproved breeds of poultry, such as the Asiatics, the business of raising "early broilers" has received a strong stimulus. Those varieties that are noted for a strong, healthy, and vigorous growth are generally selected, and many farmers are now pointing with pride to their profitable work with the incubator and prooder, and that, too, at a time of the year when there would be enforced dleness but for this recent addition to farm labor. Thousands of earlyhatched chickens are now raised compared with the few scores of a decade

The magnificent large specimens that adorn the market stalls are the product of specialists who have made their production a careful study. Left to their native state, the product would remain unprofitable and immature, and if placed side by side with the improved product, it is even a question whether the exacting public would care to purchase the inferior stock at any figure.

The speaker claims that there is profit in raising chickens as well as in selling the eggs. To secure the greatest profits, we must not keep chickens for their

corn, or other fat and heat-producing food, there cannot follow the large profood, there cannot follow the large production of eggs, because corn is not an egg-producing cereal. Oats, wheat, bran, vegetables, meat scraps, ground bone—all these form most satisfactory and profitable rations. Do not permit overfeeding, thus making your fowl sluggish, but feed them regularly with a proper amount of food. It is the hen that is active and constantly scratching and active and constantly scratching and searching that lays the greatest number of eggs.



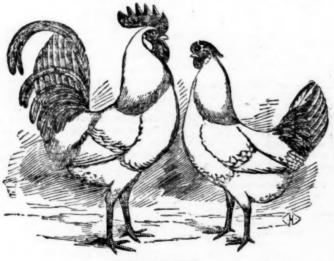
The various tests that have been made by poultry breeders with the object to determine the profitableness of poultry raising have resulted in showing that the profits averaged from 50 cents to \$2 per head for a year, this wide range in margins being due not alone to the diversified manner of caring for the stock, but the best results were credited to the improved breeds of fowls. As cleanliness is an all-important factor with the intelligent and successful poultry breeder. it is unnecessary to urge the novice to remove all droppings from the poultry house daily. There are farmers who assert that the value of the hen manure gathered from their poultry houses for manurial purposes is fully equal to onehalf of the cost of the food that they consumed. The Pennsylvania State chemist has recently analyzed hen manure, and preserved its value per ton was equal to | yield of hay. lizers, to wit, about \$32 per ton.

It is the rational management of the poultry industry that insures its success. Mismanagement will even to a greater degree ruin it and render it unprofitable. While the business is an every-day affair, a succession of little duties, little trials. and little sacrifices, let us not be unmindful of our obligations, and by a little combination of mind and muscle we will certainly realize that poultry raising does pay; otherwise the large importations of poultry and eggs from our Canadian neighbors, notwithstanding a high tariff, would have been discontinued before the present time.

Mr. Schock is special agent of the Pennsylvania State Board of Agriculture, and read the above at a meeting of the Kutztown Insti-

Try the English Walnut.

THE AMERICAN FARMER has always wondered why the farmers of this



egg-producing capacity alone, but com-bine the work of chicken raising with the so-called English walnut. The trees egg production. It will not be very will grow readily in most parts of the a harge percentage of gain, compared long before the experimenter will realize more southern portion of the country.

This provided This country is a country actual profits, instead of merely delusive promises. The common plan of walnut and butternut, and would probdisposing of all hens after they have ably flourish wherever they do. The passed their second season, because of nuts bring a high price, and those raised that theoretical nonsense that claims in this country would sell better than that hens have but a limited number of the imported ones, since the fresher they eggs to lay during their lifetime, is also are the better. The tree comes to its partially disproved by the fact that a best estate in about 10 years, and there-Black Spanish hen, nine years old, laid after goes on bearing heavily for an in- been tried in various parts of this for the modern thoroughbred varieties. These will soon demonstrate that while they cost no more to keep, they are far more profitable. The egg-producing capacity is largely increased, and stock is choice and of a desirable variety or breed, it will not be long before the

FORAGE AND PASTURAGE.

The Native and Introduced Plants of South Dakota.

BY THOS. A. WILLIAMS, Botanist Agricultural Experiment Station.

150 species and varieties. In addition

to these, there are quite a number of

sedges and other grass-like plants that

are of more or less value on account of

the forage they supply. The State is naturally divided into several distinct

regions, readily recognized by the char-

acter of the flora found in each, and par

HE true grasses are the

most important forage

plants of our State, since

they furnish practically

all the native forage, and nearly all that raised by

has a very rich, native, grass flora, containing over



ticularly by the grass flora.

Throughout the Sioux Valley region the blue stems predominate and form the characteristic feature of the region. Along with these we find switch grass, or SILVER WYANDOTTE COCK. false or Western red top, as it is sometimes called, particularly on the bottom lands. Muskit grass and some of the blue joints are more or less frequent Not many years ago blue stem was much rarer than it is now; but as the country became more settled it became more plentiful, taking the place of grasses formerly common, but which retreated before the advancing tide of civilization.

Throughout the greater part of this region, particularly the lower or southern part, many of the cultivated forage plants are beginning to be grown with a greater or less degree of success. In low, moist ground timothy does well for hay in the average season. It is of much less value for pasture, however, as it will not stand grazing during the dry, Summer months. Kentucky blue grass makes a good sod, stands drouth well, affords good, early, the result proved that when carefully and late pasturage, and makes a fair



Sheep's fescue, red fescue, and hard fescue (all are perfectly hardy) are among the first grasses to furnish Spring grazing and remain green and fresh late in Autumn. None are of any value as hay grasses. Meadow fescue, tall fescue, red top, and orchard grass are good hay grasses for lowland farms, and do fairly well on relatively high, dry soils. The fescues are rather to be preferred. Smooth brome grass, and reed canary grass (a native) are the most promising grasses grown on the station grounds of late years. These grasses, especially the former, give promise of being able to withstand very severe drouth, and at the same time to make a good yield of hay, as well as both early and late pastur-

In most cases the common cultivated grasses have yielded only a minimum amount of pasturage and very little hay during seasons of excessive drouth, but in more favorable seasons, such as that of 1892, all those named above have given paying crops of either hay or pasturage, the larger fescues leading for hay, and the smaller fescues and blue

grass for pasturage. Of the clovers, red, white, mammoth, alsike, sweet clover, and alfalfa have

clovers did very well, indeed. For the two or three years preceding none were a decided success except in the southern part of the valley, where, when once a good sod is formed, all may be successfully grown. A mixture of clover and timothy gives a better yield of hay than can be obtained from either one alone.

Alfalfa makes a good growth, stands the wheat grasses, or Western quock grasses. Muskit grass is also common. Gramma and switch grass are quite plentiful, particularly the former. Buffalo grass occurs in scattered patches. Along the so-called "burn outs" salt grass (Distichlis spicota, var., stricta) is common. Of these Winter in good condition. It sometimes suffers severely from a disease due grass, and muskit furnish the greater to a fungus, which causes the leaves to part of the hay, while muskit, wheat drop prematurely. It seems to have more of a tendency to become woody aerly here than in most other States; hence, if not cut in proper season, furnishes a poor quality of feed. With cultivation. The State proper care, however, it is one of our most successful clovers, and will cer-tainly be one of the "stand-bys" for this State.



For the Sioux Valley region we can say that the following forage plants give promise of being grown with at least a fair degree of success: Blue grass, smooth brome grass, reed canary grass, timothy, tall fescue, meadow fescue, sheep fescue, red fescue, hard fescue, red top, white clover, alsike, alfalfa, and in some locali-

So far as our experience goes the best method of seeding, all things considered, seems to be a thorough preparation of the ground by plowing the preceding Fall and then a good harrowing in the Spring, sowing the grass or mixture broadcast without any other crop, and covering with a light harrow or a brush

Seed enough should be used to insure a good stand, if possible, the first season. If cut at all the first year it should be left quite long, so as to leave growth enough to hold as much snow as possible during Winter. If any other crop is sown with the grass, such as oats or barley, it usually keeps the grass so choked that it cannot make growth enough during the Spring and early Summer to enable it to withstand the hot, dry weather of July, August, and early September; while if no other crop is sown the grass will usually be able to make a good robust growth and be in better shape for drouth and dry Win-

West of the Sioux Valley region is that of the Jim River Valley. The native grass flora of this region differs materially from that of the Sioux Valley, except in its southern portion, where



REED CANABY GRASS

grasses, blue joint, wheat grass, switch grass, and gramma make most of the pasturage.

Formerly it was thought that this region could not grow our tame grasses successfully, but since the introduction of irrigation many farmers have proven that timothy, blue grass, clover, and alfalfa can be raised. The past season very fine timothy was grown on irrigated land near Huron. Smooth brome grass has been introduced into this region, and promises to take an import ant place among good, all-round forage plants.

West of the Jim Valley lies the great rauge region along the Missouri River. Here the blue stems and blue joints are both much less common than in the two other regions. The wheat grasses, here often called "gumbo" grasses, with Western porcupine grass (Stipa comata), make up by far the greater part of the hay grasses, while gramma and buffalo grass, with the two preceding species, furnish the grazing. Throughout this vast region scarcely anything has been done with tame grasses, and none can be recommended at present unless, perhaps, smooth brome

In conclusion, it may be stated that in the Sioux Valley region and the countries lying along the Missouri River near the Nebraska line our hardplants can be profitably cultivated. to stand very severe drouth and rigid Winters. Much is hoped for from best natives grasses, as reed canary grass, and some of the wheat grasses.

# Southern Rice.

Reports up to June 15 state that the rice crop in North Carolina and Georgia will probably be below the average, while that of South Carolina will be fully up to it. The plant there is looking very well. In Louisana the planters have not planted so much as last year, but are expending their efforts in raising more to the acre, in which direction they are convinced profit lies. A large number of farmers are coming in from the Northwest and engaging in rice culture. There will be from 15 to 20 per cent. more planters this year than last. The crcp is looking very well, and it is expected that it will begin to come to market in August. Reports from other States, except Texas, are unfavorable. but in Texas there will be more acres of rice, and more raised to the acre than ever before. The total rice area in the

# The Army Worm.

United States is placed at 263,600 acres.

and the product this year estimated at

10,500,000 bushels.

The army worm, which has recently appeared on the Eastern Shore of Mary land, is the larva of one species of the owlet moth, an insect frequently found on the stalks of corn and other cereals There are four or five generations in the course of the year. The second brood, occurring in May or June, is usually the most destructive. The eggs are hidden by the female moth at the base of various cereals or in the folds of blades of grass, usually in strings of 15 or 20. In the larvæ state they remain concealed by day and feed by night, and it is only when in enormous numbers that they march from field to field in search of food, which habit has suggested their popular name.

# Profit from Strawberries.

Six hundred thousand quarts of strawberries, we are told, were shipped from Ridgely, Caroline County, this season, which netted the growers \$30,000 over and above all expenses. Here is certainly a crop worthy of the farmers' attention; one that promises better returns and more profit than wheat or corn.— Easton (Md.) Star.

Peas are one of the first crops taken off, and to get the most out of the land THE ORIOLE.

The Beautiful Bird's Resting Halite

But the Baltimore oricle deserv longer notice. He is a prince its house of princes. The family to which he belongs is composed of birds remarks able either for plumage, note, nest, egg



or habit. Each can claim something curious and original; but the Baltimore shines in everyone of these particulars, for in plumage, song and nest alike he is an especially remarkable bird. When the Earl of Baltimore became the Lerd of Maryland his followers quickly noticed the correspondence between his heraldic livery of Orange and black and the orange and black of the splendid bird that so abounded in the new estates, so that, very naturally, the name "Baltimore bird" was suggested and has been borne ever since.

His nest is one of the most wonderful examples of bird-weaving in existence.
It is made of separate threads, strings, horsehair or strips of bark, closely interier grasses and clovers can be successfully grown if carefully sown and tended. In the Jim Valley, where irrigation can be practiced, there is little woven into a sort of sack and so firmly doubt but what quite a list of forage pended from two or three terminal twigs plants can be profitably cultivated. for protection from numerous enemies, Concerning the possibilities of the range region, but little is known as yet except It is also made six or seven inches deep that plants to be grown there will have to prevent the eggs being thrown out by the high winds. But in the colder North, where tree-climbing foes are rare, branches, but in a cluster of twigs that affords shelter. It is much shallower than when exposed to the wind, but in very thickly woven and lined with soft, warm materials. The oriole's loud, fifelike notes, ringing from the high tree tope in the morning, are an ample refutation of the old theory that melody and bright plumage have never been bestowed on the same bird .- Scribner's Magazine.

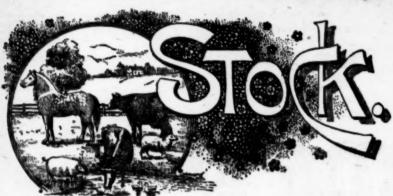
A TOWER OF ORANGES.

A Unique Exhibit at the World's Fair from California.



Los Angeles County, California, has a tower of oranges 32 feet high in the Horticultural Building at the World's Fair. At its base the tower is five feet in diameter and tapers until it reaches four feet in diameter at the top, which is surmounted by an eagle. The whole rests on a base about 14 feet square and elaborately decorated. The sight is both pleasing and surprising, as the work of building the tower has been very artistically done. The oranges have been placed in various positions, and the skill displayed amazes the sightseer. The base is surrounded by a railing, which prevents the curious and vandals from destroying the tower by taking the fruit as a memento of the occasion.

There are many points in favor of sowing Fall rye. It keeps the ground they should be followed by something sowing Fall rye. It keeps the ground else. Turnips, late cabbage, and potatoes are suggested as some of the crops feed for cattle before the grass is ready



quires correct, well-defined ideas on the

subject and suitable tools for the purpose. We quote from Colman's Rural World

the following very sensible paragraph:

"Every colt owner should ewn a foot-

rasp; never mind about a knife, the less

a knife is used around the foot the better.

The first time the smith gets at the foot

he will probably cut it enough to last a lifetime. When the colt is weaned, if it

has been handled and gentled, it will

allow the feet to be raised and leveled

with the rasp, and this should be done

at least every two or three months. If

the colt has a tendency to walk on the heel or frog and develop an abnormal

length of toe, rasp the sole toward the

toe to take away the thickness accumu-

lating and shorten the toes. If the foot

is worn at the toe, and the heels have

become too high, lower the heels with

or rim of the hoof have grown, leaving

the frog and center hollow, rasp the

edges so the frog rests upon the ground lightly, or lower the heels to a level with

the frog and take away the toe with the

rasp in the same proportion. The more

frequently the foot is put in proper shape,

the more it becomes fixed in growing in

Pen Notes.

especially good for pasturing them on.

the greater part of the so-called hog

Pigs grow well on grass, clover being

Filthy quarters are responsible for

A decree that will prove of great in-

terest to the slaughtering establishments has recently been issued by President

Diaz. The decree peremptorily forbids

consumption must be brought in alive.

that in the case of alleged fresh pork

shipped here from the United States and

points in Mexico it is not always possi-ble to decide whether or not the animal

died of some disease or was in a healthy

Rings and Cholera.

era, or swine plague, is the worst foe that

the American pig breeder has to con-tend with. As long as our scientific ex-

perts fail to agree among themselves as

to the nature, origin, and cure of this

disease or diseases, as some claim there

for me to enter upon a diagnosis of it

and expect to gain any considerable fol-

lowing for my theory, for all the learned

thesis yet promulgated are nothing but

theories, not being yet able to produce

evidence of sufficient weight to establish

Of one thing I feel assured, and that

that we feed our swine entirely too

much corn, making the blood too hot,

and thus deranging the entire internal

machinery and rendering them less able

to withstand the attacks of disease and

contagion. If we would feed less corn

and more bran, oats, barley, wheat, and

roots, such as turnips, potatoes, and arti-chokes, we would have healthier pigs,

and Europe would make use of much

In our boyhood days, when our hogs

ran in the woods all Summer, we never

heard of a sick pig. If our hogs of that

day did incline rather too much to-

ward the gray-hound type, they were at

least healthy and vigorous. I am not

one of those who believe that the methods

of our grandfathers were better than those

of to-day, but in some things necessity

compelled them to adopt measures in

their farm management that it would be

well for us, if the same necesssity still ex-

isted. Hog rings had then never been

heard of, in this country at least, and

their hogs went unadorned with jewels

In a state of nature all animals are

natural physicians, and make use of the

herbs and weeds growing wild around

them to cure all their ills. You never

heard of a dog having full liberty dying

of disease, yet just pick up a kennel paper and see how many of our pure

are confined in the kennel, and do not

get an opportunity to get those herbs

that are necessary to their health, and

man with all his boasted intelligence and

learning has not yet succeeded in find-

ing out what natural instinct teaches the

dog.

The same is true of the hog. While the

dog finds his medicine above ground, the

hogs gets his by digging or rooting it up;

that is what the snout was given to him

proper use of it. The root of the bur-

dock is extensively used in domestic

medical practice as a purifier of the blood.

bred ones are dying all the time.

more of our pork than she now does.

them as fact.

in the nose.

are two distinct diseases, it would be folly

condition when slaughtered.

that shape."

wallows

be given at all times.

Stable Talk.

Keep the Summer stable clean and free from all odors.

Barley is one of the very best foods

Timothy is a very valuable grass, but in many sections it is sown too exclu-

It will pay to give a little grain each day to the cattle, even if they are on

A good pasture for low, wet, and heavy soils is redtop, especially if white clover is sown with it.

If the fodder, is going to be scarce this Winter, part of the oats may be cut while in the milk and cured as hay.

Work horses need a liberal allowance of grain during the working season, and a variety is far better than any one kind.

#### " A MERCIFUL MAN, ETC."

#### Some Thoughts on the Spring Care of Horses on the Farm.

The care of working horses on the farm is one that deserves, but does not receive, due attention. Horses and plowboys usually have a pretty hard time of it when Spring work begins on the farm, especially if the season is a late one as is this year. The getting the crops in demands the utmost stretch of endurance and of horse and human energy. The watchword is push from sun to sun, with just let up enough to eat and sleep, but not an hour during the six working days for comfort. The teams come from the field hot, dirty, and jaded. They are watered and fed and in an hour are out and away again for the rest of the day.

When night finally comes both men and horses are too tired for any extra labor in cleaning up and examining blistered feet, galled shoulders and backs. It is not strange, then, that horses, especially colts, are found to be used up with sore backs and sweenied shoulders; probably disabled and unfit for work for the balance of the Spring. It is unnecessary to blame all this upon the farmer or his help, since the work had to be done; but there should have been time for giving careful attention to and precautions against using up the horses. The following precautions would have avoided all this trouble: Horses should be unharnessed for the nooning; the backs and shoulders should be carefully bathed in tepid, salty water and rubbed dry. If there are sore places, they should receive the most careful treatment and the harness adjusted to relieve the pressure and pre-

vent further injury.

The horses should be well cleaned, rubbed down, and bedded before leaving them for the night. The feet of orses should be thoroughly cleaned out night and morning. If kept clean and shaped, horses would work more comfortable, keep in better condition, and last longer for it. It would pay a man to wash his work horse at least once a week with warm water and soap, taking especial pains to wash out the mane and tail: but in every case rub the horse

vigorously until dry.

The old way of feeding the team on ear corn, 10 ears at a feed, with all the timothy hay they would eat, and a run on grass from bedtime until daylight next morning, was thought to be quite proper. In fact, it was quite the exception, even with the best farmers, to do otherwise.

It is found that teams do better when kept in the barn and fed on corn and eats, with some bran and oil cake. They are cool and loose in their bowels, and their strength and appetite are better maintained. A horse so treated will go through the season's work in better condition and heart than was the rule 30 years ago. One word about working harness. It is all foolishness and improvidence to use a full, fancy set of harness on a plow horse. The harness should be light and well fitting, that is all. The use of head stall, halters, blinds, back bands, gag reins, cruppers, and all extra weights and fixings should be done away with. Let man and horse be free, cool, and easy when working in the field.

# A WORD ABOUT HORSE'S HOOFS.

#### Begin Treatment of the Colt's Hoofs as Soon as Born.

There is too little attention given to the hoofs of horses. In fact, nothing is done with the majority of colts until they are three or four years old, or until they have to be shod to go on the road. When this period arrives some burly blacksmith who has the muscle and grit to tackle the colt is called upon. He has usually the reputation of shoeing the worst colts in the country, which is quite a sufficient fitness to bring him trade, though he knows as little about a horse's foot as he does about the dead languages. This is no exceptional case in this country, as is well known.

The colt should be handled carefully. gently, and promptly from the time it is born. Its feet should be taken up and examined for the purpose of accustoming it to future treatment

The hoofs of colts and horses should be taken care of and directed in growth. themselves as they followed the roots To do this intelligently and timely re- downward, and I've yet to see the first

case of cholera in hogs that had access to a patch of burdock. I would no more think of raising hogs without this weed than I would think of raising them on a diet of shoe pegs.

Of course, we do not want to have our meadows and pasture fields rooted up by the hogs. That is natural and right, and can be easily avoided. They will root only when the ground is soft, and at that time they should be kept in your burdock lot, where they can dig up all

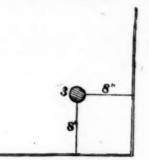
the roots they want to.

I detest all rings for hogs, especially young pigs. Some ring their pigs to wean them. The rings make the nose so sore that they won't try to nurse the sow; but they will not try to eat any-thing else for the same reason, and as a consequence they become stunted. I've learned long since that a stunted pig never amounts to much in the feeding pen. I would prefer the old practice of cutting the nose, practiced sometimes by our fathers, to the use of any ring ever made for the purpose.

If you have a ringer and a lot of rings upon hand, throw them in the river or in the bottom of the sea, and see if your hogs do not remain more healthy than they have ever been since you commenced to ring them. Rings and cholera made their appearance about the same time, and to the former, according to my belief, are we in a great measure indebted for the ravages of this much dreaded and little understood disease.-F. D. B., Wellsburg, W. Va.

#### A Good Scheme.

the rasp so the frog will just touch the ground and receive the necessary pressure to keep the foot expanded. When a foot has kept in good shape, but the edges EDITOR AMERICAN FARMER: In the May 15 issue I read an article on the sow killing her young. I will give my way in avoiding the lying on the young.



In the nest or bed corner take two poles Give the hogs plenty of pure water and they will not drink out of their three inches in diameter and 12 feet ong and fasten them securely eight inches from floor and eight inches from Too much care cannot be taken durthe wall. As sow lays down the pigs will ing the warm weather to keep the slop have a chance to run under the poles, and as the sow always wants to lay up There is no food so good for hogs as against something, this always keeps a green clover, but a variety of food should run behind her and saves the pigs .-JOHN L. LA VAKE, P. M., Lake County,

#### Hints Upon Swine Raising.

EDITOR AMERICAN FARMER: What the shipment of slaughtered hogs into the shall say to the readers of THE City of Mexico. Hereafter all hogs for AMERICAN FARMER in regard to the subject under consideration will be from This action was taken in view of the fact a practical experience and test of the theories, or rather results, of my experience and observations in breeding. Born upon a farm where the raising of hogs was one of the sources of income, and for years past making the breeding of swine for exhibition my principal business, I shall divert the subject of theory and any attempt at literary EDITOR AMERICAN FARMER: Chol-

When one looks around him and sees the capital invested in swine growing in his own locality and considers the vastness of Uncle Sam's territory, he will begin to realize the extent of the husiness This year, when everyone knows the supply is smaller than usual, the shortage at Chicago alone being 35,000 head do you realize how many that is, with 120 hogs in each car and 29 loaded cars in each train? It means 10 entire trains. and this at only one point. It probably represents not more than one-tenth of the hogs marketed in one day in the country. How important that so vast a business should be conducted in an in

telligent, thoughtful manner. Upon the contrary, there is no branch of agriculture that is given as little thought in many places as the raising of swine. This with us is a National industry, shared by the thrifty villager with his one or two pigs which supply him, and by the possessor of acres in the fertile prairie of the West, where he is considered unfortunate if he has not from 100 to 300. Ours is the greatest pork producing and pork eating Nation in the world. We not only raise more hogs than any Nation, but we have as careful, skilful breeders as can be found in any country-men whose entire energy is devoted to improving the various breeds. This is admitted by

In 1890, at the American Fat Stock Show, I remember one sturdy Englishman as he stood looking at one lot after another of the best hogs that skill could produce. He admired them silently, till the awarding of grand sweepstake or the first prize winner of eight different breeds passed by to their pens, when he gave a last admiring look, and, turning, said, "you," (meaning the Americans) "can discount the world on hogs. Too many hold to off-expressed saying, good enough for a hog." If one will take trouble to examine the physical construction of the vital organs of swine, he will find it to be nearly identical with the human body in all that pertains to digestion, circulation, and assimilation.

This being a fact, what can be greater error than that any food or conditions under which they will survive is all that is required. While I shall not claim that my plan must be followed to the letter under all conditions, or that it is the only way, in future articles I shall endeavor to give in a plain, pracfor, and he should be allowed to make tical manner hints for observing certain sanitary conditions for health which is all essential to growth; also hints upon breeding and upon the different breeds Swine are very fond of it, and in soft their characteristics and adaptability to weather I've seen them nearly bury the different conditions and markets for which they are intended .- M. H. WAL-

### AND WOOL. SHEEP

The "lambskin-with wool-on swab" the handiest tool to oil shoes and harness with. Try it once and you will always have them in use.

The French Parliament, ever ready to advance the interests of sheep husbandry, has appointed a commission to find out what can be done to improve their breeds

The German Government forbids the mportation of sheep from Denmark, owing to the prevalence of the foot and nouth diseases in that country. The most important characteristic in a

heep for the American farmer is early maturity. Of course, there are values in but they are only secondary.

The great demand for live stock to stock up new ranges in New Zealand is said to account for the falling off of frozen meat from that country of 12,500,000 pounds during last year.

Australian meat has been selling in the Berlin market for nine to 10 cents per pound. A German syndicate proposes to regulate the price of meat by importing frozen meat from Australasia.

A late report of the statistician at Washington reveals the fact that the number of sheep in the world is 534,848,024. They outnumber the swine fivefold, cattle twofold, and horses ninefold.

The English farmers had to sell their neep in 1892 for one-half the price realized a few years before, and wool at even worse figures. The only exception to this decline of prices was in Devonshire, where a system of mixed farming has prevailed.

New Zealand sheep raisers have been trying to raise a class of sheep that will suit both the British meat market, and at the same time produce a profitable fleece of wool. The experiments have led to the conclusion that a cross between the Merino ewe and the Border eicester ram is about right.

Study the sheep carefully and individually on the shearing table. If the sheep are tabbed and recorded in your flock book, by all means compare the qualities of fleece of each one with last year, and with sire and dam. Note in column of remarks whether there is an improvement, whether the family reputation is well up to former years, and any other points that do or do not please

Agriculture is rapidly encroaching upon sheep raising both in the Argentine Republic and the Victoria colony of Australia. The low prices realized on the clips for the last few years and the increased demand for other farm products have led to these changes. The probability is they will continue to increase, and wool growing will either occupy the inferior lands of decline in volume. These changes were anticipated in THE AMERICAN FARMER over one year

Florida, representing the 'piney, woods' section of the United States, is attracting increased attention as a wool growing region, and will soon become as has been heretofore. The marvelous climate, the pasturage, the cheap lands and the something that favors the growing of fine, soft, strong wool, are certain to attract the attention of intelligent men. Here, for a time, wool can be grown cheap enough to justify; later on, agriculture will advance to that point when mutton will eclipse wool growing.

Each year the mutton industry gains in importance and in favor with the farmers of the older agricultural States. The especial conditions found in Virginia, Maryland, and West Virginia are becoming better known to mutton sheepmen, and it will soon be found that no region can surpass these regions in good mutton nor in the cheapness with which it is produced. Here are found to-day many successful farmers who make lamb raising a part of farm production. It is done without expensive preparations, owing to the equitable climate, and with scarcely a tithe of the expense and uncertainty encountered in New York and New

Coarse, rough, wild grasses have been known to change the quality of Merino wool in a few months. On the contrary, the fine, soft, sweet grasses have always improved the coarser-wooled breeds of sheep. The wool market reports show a difference of value in the vools of the same grade of sheep from different sections. For convenience rather than from equity, the trade classes these domestic fleeces by States at present, and always have done so. It is worthy of note that these arbitrary gradings have been greatly modifie and are continually tending to higher grades and values. It is said that Western and prairie fleeces are dirty. gritty, and string so badly in scouring s to reduce their price; and as lands are closely grazed and become set in better grasses, a sod is formed that keeps the sheep's feet from the soil and less dust raised to settle in the fleeces, and so fleeces are cleaner and lighter.

# Too Much Grass.

The sheep farmer has a proper dread of having too much grass a rank growth of grass in the sheep pasture in the months of June and July. The excessive rains during the whole Spring have insured an immense growth in the pastures, and may well cause anxieties inless the off-repeated injunction to divide the pastures into lots and to confine the flock upon an area of grass that they can keep closely cropped has been followed. No flock of sheep can remain vigorous and healthy on overgrown, wet, sour pasturage.

#### A LAMB CLUB.

#### A Tennessee Organization Which Has Done Much Good Work.

The statements of Col. R. A. Cartwright, President of the Goodlettsville (Tenn.) Lamb Club, are so suggestive that we offer them to farmers who are raising lambs and putting them on the market at a disadvantage, because they have no organized system of selling. Col. Cartwright writes, June 5, 1893:

Our organization dates from 1879. We began with about 20 members; can't be exact, as we kept no permanent record for several years. We now have on the roll 91 members, but all of them are not active; that is, some years some of our members sell their flocks and do not furnish any lambs. Our largest sale was in 1891, when we put in size and qualities of careass and pelts, at the two sales, May and June, 2,870

"This has been the worst season since our organization on account of failure to get any grazing from Winter grain. The lambs failed to get fat, and a great many that were brought by our members were rejected by the Executive Committee.

"We delivered the 25th of May 1.475 lambs, averaging 66 pounds. This was the highest average we have had for a number of years. "We steadily increased in number of

lambs offered from time of organizing until 1891, when similar organizations were formed near enough to draw off some of our more distant members. "It would be better for the usefulness

of the club if we could still further reduce the area of our territory, as our best lambs are produced within a radius of one and a half miles from our village, the center of our operations.

"Our club has been of great advantage, however, to the surrounding country, as there is much hilly land that ought to be in grass, and the partial success of those occupying these hill lands will lead to still greater efforts to produce grass and thus make sheep farming a success with these farmers.

"Our club has been a great blessing to sheep raisers in this part of Tennessee. For the May delivery we received \$6.50 per 100 pounds, and the June delivery was sold for \$6.37\frac{1}{2} per 100 pounds.

"For ewes to raise lambs, the native ewes are nearly exhausted and we are compelled to ship them in from other equaled in quantity, softness, and regions. We get a great many from Mississippi, Alabama, and Texas; but these are not so good as our home-grown

Code of By-Laws of the Goodlettsville Lamb and Wool Club:

Sec. I. This organization shall be known as the Goodlettsville Lamb and Wool Club. Sec. II. Any person engaged in raising sheep may become a member by making application to the same in person, at any meeting of the club.

Sec. III. Any person who sells his wool or lambs outside of the club, shall forfeit his

sec. IV. The officers of the club shall be a President and Secretary, who shall be elected annually at the first Spring meeting of the

club.
Sec. V. It shall be the duty of the President to preside at the meetings of the club, appoint committees to transact business for the club, of the club whenever he deems it necessary Sec. VI. It shall be the duty of the Secretary to keep a record of all the proceedings of the club, to issue calls for meetings when ordered by the President, to record the names and to keep a record of the sales of lambs and wool made by the club. This record must be in the form of a pay roll showing the number and weight of lambs, weight and class of wool delivered by each member, and the net wood delivered by each member, and the net amount of money to which he is entitled. He shall be, ex-officio, a member of the com-mittees on sales of lambs and wool, and shall receive for his services \$2 for each meeting of

wool being counted as meetings. Sec. VII. It shall be the duty of every member to attend the first annual meeting the club, and to report to the Secretary the probable number of lambs he will have for

the first delivery.

Sec. VIII. At the first annual Spring meeting it shall be the duty of the President to appoint two discreet members to act with the Secretary as a committee to sell the lambs.

The sale shall be made by advertising for and receiving sealed bids till such time as the club may direct, at which time the committee will open the bids and award the sale to the best bidder. This committee shall be at the scales on the day of delivery, and if any member of the club-offers lambs that are under the weight agreed upon in the sale, or not in the condition agreed upon in the sale, it shall be the duty of the committee to reject such lambs. The committee shall hire such help as may be necessary to handle the lambs and to assist the purchaser to take them to the cars and load them. The members of this committee shall receive \$1.50 each for their

services on day of delivery.

Sec. IX. It shall be the duty of the President to appoint two members to act with the Secretary to sell the wool belonging to the einh at such time and in such man elub may from time to time direct.

Sec. X. No member of this club shall keep or allow any tenant to keep, but one dog, and that one shall not be a bitch (an exception being made that members may keep as many fox hounds as they choose, but no other dog The penalty for violation of this by-law sha be a tax of \$1 on each dog, and \$2 on each bitch in excess of the number allowed, and that members shall be responsible for the tax on dogs owned by their tenants. This tax shall be retained by the sale committee, ou of the proceeds of the member's lambs, and the committee must not receive his lambs unless he agrees to abide by this section. Sec. XI. All expenses of sales, advertising, sec. XI. All expenses of sales, advertising, etc., shall be assessed by the committee prorata, and deducted from the proceeds of each member's lambs or wool before the pay roll is made out.—G. W. PEAY, Secretary Good-

What Ails the Texas Sheepmen? Why are the Texas flockmasters send-

ettaville Lamb and Wool Club.

ing their sheep to market as fast as they can without regard to their condition or the state of the market? The sheep are sheared and shipped. Within the last few weeks, the first and second weeks in May, 75,000 Texas sheep have been sold in Chicago, the like of which was never known before. All the markets are alike crowded with Texas sheep, and all of low grade. The wonder is that the market was not utterly demoralized. At that time Western shorn sheep sold \$5.25 to \$5.40; Texas, \$3 to \$5, including 1,302 heads, weighing 81 pounds, at \$4.55; 702 choice wethers, 94 pounds,

# Now, these Texas sheepmen do not know any more about the future of the sheep industry than anybody else, nor

never did; but evidently they have no faith in the future of sheep and wool, and mean to get their money out of the business as fast as they can and then wait and see what will happen.

Fortunately this view is not taken by the intelligent sheep raisers in this country. There is a firm belief in the mutton industry at least, and a very decided inclination to stay by the flocks and meet the situation, whatever it may have in store. If Texas sees fit to stam pede it will only leave the more room for better sheep and the future to men who have the boldness to stay by their flocks and business convictions.

#### A Wool Grower's Plaint.

One of the largest and most successful Western wool growers gives us a rule, and when stretched out straight is very little of the inside of the sheep easily 14 inches. It is very clean briefly business from the standpoint of profit and loss. Three months ago he was hopeful that the prices of wool would be fairly good for one year at least, and maybe longer. Hear him: "I write to say that matters have changed very materially for the worse for the sheepmen all over the country within the last three months. Three months ago they did not know that they could not sell their wool, fine wool at least, at over 12 to 14 cents; but now they know it, which puts a damper on the whole wool and sheep industry.

"It is almost impossible to sell sheep at any price. Mutton markets are glutted. Good sheep are selling at three cents and a half, with no hope of getting in wool or sheep for the next so it is well to mention the "shearling two years.

"We have 700 good sheep for sale, but the prospects for selling them is exceedingly gloomy. Besides these, we have several hundred stock sheep that we would be glad to sell."

#### Sheep in Missouri.

According to State Auditor's report, just out, it appears that Missouri has 920,950 sheep. It is believed there are 300,000 farms in the State. If so, there is a fraction over three sheep to each farm in the State. Missouri contains 44,425,000 acres of land, and no State in the Union has such healthy conditions for sheep; the water is unpurity; the grasses soft, sweet, and grow readily with the least encouragement everywhere. Then, what's the matter with the farmers of Missouri? Nothing. They are just like thousands and thousands of other farmers all over this country. They don't know how to raise sheep—they don't want to know, and are, apparently, not going to try to learn. There are lots of good farmers in Missouri, but too many are old-fashioned scrub farmers, depending upon hog and hominy; following practices, prejudices, and traditions of their fathers. Is there no remedy? Oh, yes; but it comes so slow. It will in time, and come to stay.

# BEFORE OR AFTER.

# An Experience in Shearing Fat Sheep

and Some Wool Samples. EDITOR AMERICAN FARMER: I saw in the on shearing fat sheep before putting them on the market. It is my opinion that it pays well to shear them, and I will tell you my reasons for thinking so. On the 1st of March I clipped about 100 sheep. I had a good place to shelter them from storms. Until that time they had been fed moderately, but after shearing I put them on a self-feeder and gave them clear shelled corn until the 10th of April. I never had sheep gain as those sheep did in all my experience

gain as those sneep did in air my experience in keeping sheep.

These sheep were half-blood Shropshire lambs, and weighed seven pounds per head. The wool sold for 23½ cents per pound, and night a little over \$1.60 per fleece. as the local buyers would only make a difference of \$1 per head between fat sheep shore and unshorn, it will be seen that I gained sheep. Again, I am positive that these sheep gained a number of pounds more per head by being sheared than they would have done with their fleeces on. Another point was gained by shearing; the ticks were got ten rid of, which, too, was a great help in

fattening them.

The lambs weighed 1021 pounds on average with the wool off, and sold for within 100 pounds of what full-fleece sheep sold for

that day.

Inclosed please find a few samples of wool clipped from my flock of recorded Shropshire ewes. These ewes all have Shropshire ewes. These ewes all lambs by their side; the most of them twins. These samples are of just 365 days' growth.—SMITH ROGERS, Michigan.

The samples of wool: There are five of these, all showing the highest characteristic of Shropshire fleeces. The shortest one measured full five inches as it lay loose on the rule, and when straightened out was a little over six inches in length. The longest sample, as it lay loose, was strong six inches, but when drawn out tight was found to be seven and one-quarter inches.

The character and condition of these vool samples would warrant the expectation of the highest market price for the fleeces which they represent Though unwashed, and from unwashed sheep this wool is so clean and clear of every sort of matter that we would pronounce the shrinkage not to exceed 25 per cent. It is not to be wondered at that Shropshire wool leads the wool market by three to four cents per pound over fine wools.—EDITOR AMERICAN

A Scotch company, with \$2,000,000 invested, will engage in canning Argentine meats for the European markets. The output for 1892 was 10,000 tons, valued at \$1,000,000. Of frozen meats, they shipped 25,000 tons to England

Mutton and wool is our motto both for farms and ranches.

Any of our young friends can earn a AMERICAN FARMER, at 50 cents each. | Lincoln Sheep Breeders' Association.

#### LINCOLN SHEEP.

#### Some Specimens of Shearings from a Thoroughbred Flock.

EDITOR AMERICAN FARMER: I take grout easure in reading your valuable paper, could be in the hands of every farmer. am engaged in sheep breeding. I inclose in this a sample of wool from my Lincoln shear-lings. I have seven fine bucks for sale, all registered, bred from an English buck that goes to the World's Fair, Chicago, this Summer. Ewes are all full bloods from inported ewes. Please give this wool a measures ment. I am also a breeder of Shropshire. The sheep are on the Eby stock farm, two and a half miles east of Roann, Wabash Co., Ind. Four of my bucks sheared 19 pounds.—II. Z. LEONARD, London, Canada.

#### MR. LEONARD'S SAMPLES.

There are three: Viz., Association No. 434, shearling ewe, sheared 19 pounds of unwashed wool. This sample. is 12 inches long as it lies loosely on the easily 14 inches. It is very clean, bright, and wavy; lies in ringlets.

No. 433, shearling buck, sheared 16 pounds; probably unwashed; not mentioned in memorandum. The wool is perfectly clean and loose; measures 11 inches; when drawn tight one inch

No. 431, shearling buck; weight of fleece, 15 points; presumably unwashed As the sample lies loosely on the table it measures a little over nine inches; when drawn out straight it reaches 10} inches. The quality is superb in every characteristic of Lincoln wool. It equals the best mobair in fineness, whiteness, and luster.

Americans are not familiar with terms used by English and Canadian breeders. represents the age of the sheep. A year old ram or buck is a shearling buck : a year old ewe is a shearling ewe. The samples are typical Lincoln wools.

The No. 434 sample is a delicately. creamy white in color, which is always regarded with especial favor, as perhaps indicating force of constitution. W this notion prevails with young breeders as with breeders of a quarter of a century ago, we do not pretend to know.

The last two samples are perfectly white, We have no hesitation in saving the best breeding and the most periect management and preparations of wool for the market are all represented in the three beautiful samples of wool .-EDITOR AMERICAN FARMER.

#### Some Pointers on English Sheep Raising.

The Canadian Live Stock and Farm Journal gives some methods and practices of the English sheep farmer that are suggestive and worth considering by Americans as well as Canadian farmers. It asks: "To what extent can we in this country follow the English methods of sheep husbandry with profit? "Sheep farmers in England do not all

follow the same methods of care and management of flocks.

"In some sections where they have shaded, permanent pastures, the sheep are allowed to roam at large for a portion of the season. In other parts of the country they are folded in hurdles during both Summer and Winter. In some cases they are folded on grass lands and moved every day; in others they are kept in folds, the grass being ast AMERICAN FARMER that you would cut and fed in racks. When fed in this way they are moved at regular in tervals; so that, in either case, by this system the land is regularly and evenly manured: and again, in other cases, the land is sown with vetches, the sheep are then folded on this land, the vetches being cut forward of the fold, and also fed in racks.

"Another thing the flockmasters are very particular about is the use of firstclass rams, even in the flocks that are only kept for wool and mutton. They attend the ram sales and buy the best they can get. \* \* \*

But to determine just how far we can follow the English practice of management in our flocks, we must first consider the different circumstances in which we are placed-our hotter climate in Summer, the more intense cold in Winter, the smallness of our flocks, the greater cost of labor, and the value of the product. Yet in many ways, to a certain extent, at least, we would do well to follow their examples in the care and management of their flocks."

# Persian Sheep.

A small flock of Persian sheep will be placed on exhibition in the live stock pavilion of the World's Fair some time in September. The peculiarity of the Persian sheep is that during the Spring and Summer season it accumulates a large amount of fat in its tail, that appendage reaching a weight of 25 to 50 pounds. During the Winter or dry season it hibernates much like a bear, and consumes the fat thus

stored up.—Exchange.
Remarks: The hibernating part of the above paragraph is misleading and quite amusing, since there is no more truth in it than can be said of any other sheep or animal. When feed is abundant, sheep gain in flesh; when feed is limited, they lose in flesh; that is, the system consumes the accumulations of more favored times. There is no hibernating about it.

#### Our Wide Circulation. EDITOR AMERICAN FARMER: The

tem in regard to large lamb in issue May 1 has brought me inquiries from six States. Lincolns are the best all around sheep in existence, in my opinion. They shear from 10 to 20 pounds of fine, lustrous, oily, long wool, and raise a majority of twin lambs. Lady Garrie (in my own flock), six years old, has a record of six lambs and 401 pounds of choice wool in three years. I refused \$50 for her recently. The purchaser of my clip of wool this Spring said it was the watch and chain in an hour by getting choicest clip he would get this season.six of their friends to subscribe for THE H. A. DANIELLS, Secretary Michigan

# BY BESSIE AINSWORTH SAFFORD

HE SQUARE, white farm- farm?" NIX. house stood some distance back from the country road. Several large trees shaded it, and bright sweet williams, carnations, and balsams grew in the little garden at the right, which was surrounded

by a wooden fence. A grassy carriage road ran between the garden and the house to an unpainted barn with a broken weather-

cock on the top.
On one side of the house was a piazza, with the kitchen door opening out upon it. The front door had no steps or path leading up to it, and apparently never

was used A shabby, two-seated buggy stood before the open side door, with a bony, faded, black horse attached to it, and an overgrown girl, with stooping shoulders and light yellow hair brushed tightly back and knotted, came out of the house and climbed into the front seat.

She had a general air of being "dressed up" for some occasion. Her ill-fitting, cinnamon-colored bunting dress showed signs of having been recently turned and made over. Her straw hat, of the same color, was ornamented with faded pink roses, and a bow of light-blue ribbon was fastened at her throat by a cheap clasp pin. She wore black mits, and these in a measure served to hide her rough hands.

After seating herself in the buggy and taking up the reins she looked back at her mother, who stood, with her sleeves rolled up and a dish cloth in one hand, in the doorway watching her. Her mother was a thin little woman, with large, anxious eyes, and an expression of being crosswise with the world and everything in it.



THE HOMESTEAD.

"I don't see but what, at last, you look as slick and span as the other girls,' she said. "When'll you git back?" "In a couple of hours, I guess; you'd better have supper ready then. Lucia's sure to be hungry."

"The train'll prob'ly be late, it always is, but I'll be ready for you, any-

Hetty clucked to her horse to move

"Good-by," she shouted as she passed

out of the gate.
"Good-by," called her mother, and waived the dish towel at her.

The road along which Hetty traveled lay between fields of waving grain. The

music of the grasshoppers and crickets filled the air, and the bushes which clung to the fences were covered with great red raspberries. "I don't see why ma can't brace up an' be happy, now that the morgag's

paid," she meditated. "I guess the reason she ain't is because I ain't like other girls-ain't got no beau or nothin', or ain't good lookin'." While she was thus plodding along

the dusty road absorbed in her own thoughts she heard someone call her from behind. She pulled up her horse, looked around, and saw her neighbor, Charley Phelps, trying to overtake her. "Hello, Hetty," he called, "whar be you a-goin'?"

"To the village," replied Hetty, "to meet my cousin, whose comin' in on the

"I'm goin' to the village, too, give me a lift, won't you?" he asked. "Sartin," said Hetty, cordially, "jump

'Thanky," said Charley, and clambered in beside her on the front seat. Hetty clucked to her horse and they

jogged along comfortably together. "Better let me drive," said Charley, taking the reins out of her hands, "it ain't proper for you to do it when you look so slick. Got a new dress, ain't you?"

Hetty blushed. "No, it's one of ma's made over," she said, with true Yankee frankness.

"It's awful pretty, anyhow," Charley, "and suits you, too." Hetty blushed again, she was not

used to compliments. "I guess you're stretchin' that," she mid, awkwardly.

"I say, Hetty," said Charley, after a moment's silence, "I've been a-wantin' to ask you something for a long time, an' mebby I'd better do it now, seein' you're a-goin to hev company, an' most likely I won't hev another chance. I've hed a place offered to me out in York State, if I'll come out an' take it. It's a real nice one, an' I could take care of you

if we was to git married." "An' go to York state?" asked Hetty. "Yes, little 'un, why not, we'd be

real good if you'd only let me-I mean

"But ma," said Hetty, "an' the

"Leave her to take care of that," said Charley. "Leave ma? Oh Charley, I never could."

Charley. "But she'd die if she was to leave the farm. She was born an' raised thar, an' her father before her, and she's just now got the morgage paid off an' can live

"You might take her along," said

happy."
"Well, then, s'pose we leave it to her most prob'ly she can fix it all right."

Hetty did not answer, but looked up at him through happy tears, and he bent down and kissed her. To Hetty a kiss was a sacred pledge of love, one she could never break.

Charley took a little plain gold ring from his pocket and slipped it over the third finger of her left hand.

" Thar, child," he said, " you can wear that unto I git another one for you in York State , ith a real diamond in

When they reached the village Charley left her, and she went on alone to the station. She was very happy when she looked down at the ring.
"I've got a beau as well as the other

girls now, as sure as gospel."

She was not a moment too soon. The train had already arrived, and the passengers were alighting. She got out of the buggy and tied her horse with a rope to the post in front of the door. 'A fat woman carrying a baby and a paper bag was coming up the platform, followed by two small children. Behind her was a tall girl with auburn

hair and a brown dress, whom Hetty recognized as her cousin Lucia. She wore a hat which she thought the most beautiful she had ever seen in her life. It was a brown one with nodding feathers.

When Hetty was alone that night with her mother she told her that Charley wanted to marry her.
"Wall, I declar'," said her mother,

'ain't it true that it never rains but it pours? Here we've got the mortgage paid off, an' the next thing is you've got beau, an' I thought for sartin', things point in that way, that you never was agoin' to git one."
"But, ma," said Hetty, "he wants me

to go to York State with him to live." The pleased light left her mother's

"Oh, Hetty, Hetty!" she sobbed you wouldn't leave your poor old Hetty's heart sank.

"Wouldn't you go too, ma, if things uited?"

Her mother only sobbed and rocked back and forth. "Well, ma," said Hetty, "don't cry

I'll stay by you, anyhow.' Charley seemed to take a liking to Lucia right away. She was a good looking girl, and tried to please him.

If you are, go via Cincinnati and the C. H. & D. and Monon Route. The superb train service of this line between Cincinnati and Chicago has earned for this line the title of the "Warld's Fair Route". It is the only line Hetty was shy and awkward, and soon

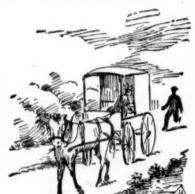
began to feel rather left out.
"Your beau seems to like Lucia, said her mother one day. "You'd better keep him shy of her or you'll lose him, sure as gospel."

"I sin't afraid," said Hetty, "we're engaged."

"I wouldn't be too sartin'," replied her mother, "even good lookin' folks has lost their beaus before this."

One night after the work was done Hetty went over into the garden alone. She wore her cinnamon-colored dress.

"He said this was pretty," she thought, "but I guess some carnations might make it look a little more respectable like. Lucia looks so beautiful.



'HELLO, HETTY," HE CALLED, "WHAR BE YOU A-GOIN'?"

After awhile she saw Charley coming toward her. He had on a new suit of store clothes, and Hetty thought he looked very handsome.

"Evenin', Hetty," he said. "Evenin'," answered Hetty. "I'm agoin' away the day arter to morrow," he said abruptly, "an' I want to know if you're agoin' with me."

The tears sprang to Hetty's eyes.
"Oh, Charley," she sobbed, "I can't

leave ma."

"But if you love me you ought to come with me; your ma ain't no right to come between us."

"Oh, but Charley, I've promised to stay by her," she sobbed.
"Well, well, don't cry," said Charley, I guess things 'ill fix themselves some-

how; they most always do if you give them time. They walked together out of the gar-

"I've got to go," he said. "Good-by." "Good-by," said Hetty, mechanically. The next evening Hetty put on her cinnamon-colored dress again. She must look well the last night Charley was there. Lucia had walked to the little page and get up a club of six.

postoffice with a neighbor and Hetty was glad; she wanted to see him alone the last night. About 9 o'clock she went down to the

gate and looked up the road. Two figures were coming slowly along, but she did not see them. Could it be possible that he was not coming to say good-by?
"Ain't you ever a-goin'to bed, Hetty?"
called her mother from the door. "It ain't no use a-waitin' any more for your beau to-night. He won't come now, it's

Hetty came sadly into the house and went up stairs. About half an hour later she heard Lucia come and go softly

to her room. The next morning she awoke with a start. She felt as though a heavy weight was pulling her down. She knew why. It was because Charley had not come to say good-by. It was very early, but she got up and lighted the candle. A little

neatly folded note lay on her table. She grasped it with trembling hands. DEAR HETTY: Don't be frightened wher 

It was a terrible blow. "Lord help me," she sobbed, and He did. After a while she went down stairs. An expression of pathetic resignation was on her face.



AIN'T YOU EVER A-GOIN' TO BED, HETTY?

"He broke his pledge that he made when he kissed me," she said to herself,
"but I don't mind, and most likely I can keep it better by a-lettin him marry Lucia, an' havin' someone to look arter him, than by keeping him awaitin,' I don't know how long, for me. The diamond 'll look beautiful on Lucia's

"You're awful early," said her mother, vawning as she came into the room. What on airth hey you got thar?'

Hetty handed the letter to her silently. "I ain't got my specs here," she said read it for me, can't you?"

Hetty hesitated, then cleared her throat, and read it through to the end. "So you've lost your beau," said her mother, consolingly. "Never you mind, Hetty, she added, persuadingly; "we got along before he asked you to be his wife, and we kin git along now, an' mebbe someone will come along after you pretty soon and be satisfied to live

Going to the World's Fair?

If you are, go via Cincinnati and the C. H running Pullman Vestibuled trains with dining cars between Cincinnati and Chicago. The C. H. & D. have issued a handsome panoramic view, five feet long, of Chicago and the World's Fair, showing relative heights of the prominent buildings, etc., which will be sent to any address, postpaid, on receipt of 12 cents in stamps. Address, E. O. McCormick G. P & T. Agt., "Worlds Fair Route," 200 West 4th Street, Cincinnati O. Be sure your tickets read via Cincinnati and the Cincinnati, Hamilton & Dayton R. R.

The sugar season in Cuba may now be considered virtually ended, as the yield of the few estates still grinding will have no appreciable effect on the total production. It is estimated that the vield of the whole island will amount to between 750,000 and 800,000 tons, a very large decrease from the average

total production. The severe drouth which has persistently prevailed since October last has not only affected the yield of sugar, but has considerably injured the tobacco crop. In several localities cattle are beginning to suffer for want of water and the grazing fields furnish little nourishment, the grass being practically burned

up.

The construction of the line of the Western Railroad, which is to connect this city with Pinar Del Rio, its terminus for the present, is satisfactorily progress-ing and the line will soon reach Las Obas. The running of trains over the new line is delayed only by the want of bridges, which are expected shortly from abroad.

They will be erected as soon as they arrive over the Ajicmal, Paso Viejo and Guama Rivers. It is expected that within four or five weeks the new section will be opened to public traffic.

# A Specific for a Head Cold.

A French savant has discovered remedy which he claims to be a specific, and he has published the formula for the benefit of suffering humanity. It is as follows:

Salol 1.00 grm.
Salicylic acid 290 cgrm.
Tannin 10 cgrm.
Powdered boric acid 4.00 grm.

At the outset of a cold in the head a pinch of this powder is to be snuffed up each nostril every hour for the first half longer it gives rise to an eruption of the edge of the nostrils. But the preparation can be so modified as to prevent this eruption by reducing the proportion of salol to one-half or one-quarter of that mentioned in the formula

Read our great watch offer on another

Hummings.

That bees can be raised in the sun with some success is now proof that they do not need shade.

Nothing is so much to be dreaded in the apiary as the melting down of combs or the spilling of honey.

Be slow and cureful to properly adjust frames when returning to the hive, so that the bees will not be injured. Buckwheat can be grown on land

that is not suitable for other grains, and

honey made from it finds a ready sale. Every hive of bees that does not contain a good, fertile queen is in danger of being robbed, and must be looked after.

Never stand directly over the hive when working bees at this season, and, if possible, never open the hives during the working period.

When the hives are moved again let them rest in the shade of some tree. Almost any kind of tree will be of benefit in hot weather.

The right time to place on suplus boxes is when the hive or lower story is full, or nearly so. As long as the bees have abundant room there is no need of any surplus boxes.

Use the best combs for the brood nest and the oldest and roughest near the outside for storage. Do not allow any drone comb to remain in the hive except the colonies you wish to breed from. Cut it out and insert workers' comb in its place.

It is often the case early in the season that the cluster of bees in the hive will be found to locate their brood at one side of the hive. This should be looked after in good season, so that the brood will occupy the center combs, and the frames heaviest with honey be placed nearest the outside.

When the plan of extracting the honey from the combs is followed, always allow the cells of the combs to be filled, but do not allow them to be sealed over. Take out the frames, put them into the extractor, turn the reel and the liquid honey is thrown out by centrifugal force. If care is taken in handling not to injure the frames, they can be put back into the hives to be again filled with honey.

#### SOMETHING ABOUT POLLEN.

The Work Performed by Curious Little Vegetable Germs.

EDITOR AMERICAN FARMER: Few grains of plants. Readily gathered in tution, Washington, D. C. the garden or in the field, their varying forms afford a most interesting study to the amateur naturalist. Each flower bears pollen of a shape peculiar to itself, so that by examining any bit of honey one can discover just what kinds of blos-soms were rifled of their sweets by the bees to make it.

There are so many wonderful things to be told about pollen. Everybody knows that the "stamens" of a flower are the little stalks with vellow heads which are scattered around, but not in its center. These heads are called "anthers," and each of them contains a number of very these grains is found to be a single cell, which has two coats, and within the nner is a flaid. In the fluid, when mixed with water, may be seen a great many extremely minute granules, which constantly keep up a sort of vibratory motion. These granules are composed of starch and protoplasm, the latter being the germ substance of plants yet to

The anthers, as soon as the pollen within them is ripe, burst and scatter their contents. It is intended by nature that some of the grains shall fall upon the "stigma" at the top of the "pistil,' and this is apt to happen if the anthers are situated above the stigma. But many flowers depend for the accomplishment of this upon bees and other insects, which got their bodies covered with pollen while seeking for honey, and then rub themselves accidently against the pistils. One kind of plant is described by the botanist Gray which can only be thus "fertilized" by an actual fight between bees. However, in whatever way the result is accomplished the pollen is made to adhere to the stigma by a sticky secretion on the surface of the latter, and presently something astonishing occurs.

The outer coat of the pollen grain bursts, and the inner coat passes through it in the form of a tube, which gently enters the stigma and passes downward into the upper part of the pistil, called the "style," making its way through the latter until it reaches the "ovarium" at the bottom of the style. This ovarium is a sort of seed case formed of several chambers formed like the "fis" of an orange, in each of which is an "ovule" or seed. In fact, an orange is actually such an ovarium, and the pips or seeds are the ovules. Each ovule has a small hole in it, as you may discover by soaking an orange seed in water, and then squeezing out the fluid absorbed, which will h seen to issue from the little orifice. It will be perceived presently how essential this orifice is to the purpose of nature.

Ordinarily, from each pollen grain several of these little tubes proceed. Some of the grains, like those of the nasturtium, are triangular, and one tube comes out of each corner, while other day only. If used more frequently or kinds of grain emit quite a number of tubes. The tubes passing down through the pistil to the ovarium direct themselves into the different chambers and enter the several ovules or seeds. Very often the seed is not in such a position that the tube can find its way to the orffice it seeks, but, just as it is descending, the seed always turns itself so as to receive the tube through its opening. tity if the colony is to break up and di- 24 hours to more than 16,500,000.

The granules which the pollen grain vide as often as inclination or instinct originally contained make their way down through the tubes, and some of them are conveyed into each seed. While these granules are yet within the tubes they are seen to develop into new cells, which form the rudiments of future plants

Thus the germs are conveyed into receptacles where nourishment has been stored away for their use by the parent plant. The pulpy matter contained in the seed consists of starch and sugar, and these nutritious substances are fed upon by the growing embryo, just as the chick develops in the shell from the germ to the downy bird by absorbing the yolk and white of the egg. What food the embryo plant absorbs from the contents of the seed, however, does not for the most part contribute to form those portions which are afterward to be developed into stem, root, and leaves. The bulk of it goes to produce the temporary "seed leaves," which appear—sometimes one and sometimes two—when the grow-ing germ, fattened upon the sugar and starch of the seed, bursts the envelope of the latter and "sprouts."

A part of the starch originally stored away in the seed is intended to nourish the young plant while the latter is beginning to grow and unable to feed itself. This portion of food is sometimes, as in the pea or bean, absorbed into the tissue of the seed leaves, which subsequently yield it up to the plant, as an infant is fed from the bottle, until the true leaves and root are sufficiently developed for its support. In other cases the reserve supply of nutriment occupies a separate receptacle, closely resembling the yolk bag of an egg. This latter arrangement is made for plants that bear one seed leaf, as well as for some that bear two, like the ash and horse chestnut. It will be observed that the vegetable, just as the animal, parent provides for its off-spring until it is able to procure nourishent for itself

Only recently has the idea found acceptance that plants possess intelligence. The natural philosopher, being unable to account otherwise for many wonderful phenomena in the vegetable world, has yielded to the conviction that trees, that perhaps even so minute and insigobjects seen under the microscope are so beautiful and interesting as the pollen sesses sense!—O. M., Smithsonian Insti-

#### The Queen Trap.

EDITOR AMERICAN FARMER: This is found in every modern apiary in which beekeeping is conducted for profit. It is a great help and is well nigh indispensable. It was invented by Mr. Alley, of Wenham, Mass., who is, in beekeeping, perhaps, what Isack Walton was in angling—the highest

The queen trap is also a drone trap, and there is no easier way to get rid of drones than to attach the trap and then a limited number of colonies would give trees were small, but had very large small yellow grains, which are the pol-len. Under the microscope each of with insect powder. It is not a good my early apiarian experience I believed plan to pinch to death drones near the in large apiaries, but I have proved to hives. In an apiary conducted for profit-in an apiary driven, forced to its full capacity—there is no place for drones, social, musical, and harmless as they are, and there is no use for them in such an apiary, for there is no natural swarming, and when colonies are swarmed artificially they are given queens and do not raise their own queens. Therefore, as no queens are raised in the apiary, there is no use for

drones While the trap acts as a swarming regulator, it keeps the drone crop in check. Generally, however, it is not desired to destroy all drones; they make a cheerful sound, and it is believed that the workers are more contented if a few drones are permitted to live with them.

The trap as a queen trap should go of mixtures. on to the hive just before the first great crop of honey comes, provided the colony has been recruited to the maximum strength; for, if it has, it will swarm as soon as the new honey begins tura is a very great honey County; in

to flow in in abundance. If the trap is in place, swarming is impossible unless the colony has provided itself with a virgin queen, for the virgin queen may pass through the trap. But this will not happen if the beekeeper knows, as ought to be the case, what is going on in the apiary in every colony. An old queen may die suddenly, and of course a new queen comes on immediately, or as soon as one can be raised; but there is at least 16 days between the loss of the old queen and the coming of the new, and in this time the beekeeper ought to learn what has happened.

But when the colony with old queen attempts to swarm the queen is held. The bees will cluster on the tree, but they will go back, for life without a queen will be brief, and the bees realize t. If it is desired to have the colony swarm naturally, now is the opportunity. The colony is on the tree and the queen is in the trap. Carry away the hive the bees have left and place an

empty one where it stood, with the trap with the queen in it at the entrance. The bees will return, find a new home, and their queen waiting for them. Let the queen out of the trap and the swarming is over. But in an apiary conducted for profit there should be no natural swarming. It is easy enough to get bees, but

it is not bees that are wanted after the

strength; it is honey that we want, and

honey we cannot get in sufficient quan-

colonies are recruited to their full

prompts. The trap should be hooked to the hive or attached to it in some way to

keep it there and to allow its quick removal when necessary. If I had not seen this "with my own eyes," I might think it incredible: A colony showed signs of swarming or attempting to swarm, and at last it began to rush out of the hive through the trap. The trap was choked, and then by the force of bees behind it, it was pushed from the alighting board and fell to the ground, and as I rushed to replace it I saw the queen take flight. The colony was soon hived.

I must say a word about the queen in the act of taking flight from the alighting board. It is not often that a beekeeper sees a queen in the act of fly-ing. It is a sight worth seeing. As she spread her wings and sailed away, no wonder that the bees followed her She appeared like an animated brilliant a diamond of wondrous beauty, for the sun shone on her as she spread those marvelously beautiful wings.

Keep the trap on all Summer, but

ake it off every night after 5 or 6 clock and let it remain off all night. This gives the bees a chance to sweep the entrance clear of dust, cell-cappings, and pollen pellets that have accumulated during the day, and it allows freer ventilation during the night.

Paint the hives two coats of good paint or it may warp in the sun and rain. While the beekeeper is at work n the apiary, the trap may be removed. for if the bees swarm they may be hived, but there is a sense of security when the beekeeper is away in knowing that the bees cannot escape even if they attempt it.—Julia Allyn.

#### OAK LEAF APIARIES.

Notes from a Successful California Bee-

EDITOR AMERICAN FARMER: Our honey season here in the upper Sierras has fairly commenced, the bees are breeding very heavily, and honey is coming in very rapidly, principally from the man-zanitas, maples, fruit bloom, and wild shrubs, and even grasses have brains or flowers. I work my bees almost entirely something to correspond to them. Their brains are in their roots, which seek for pays best. I try to keep down swarmwater with such unerring instinct and do ing as much as possible by giving bees many other things equally indicative of about the right amount of comb buildwhat may be fairly termed thought. If | ing room, and by frequent extracting. so much be granted, is not the operation I have about all my surplus extracting of intelligence equally evident in the combs built between two full ones. No elaborate functions performed by the matter whether I use comb foundation little germ cell whose story has been or not, by having combs built this way told? How wonderful it is to consider a twofold purpose is gained—the bees a twofold purpose is gained—the bees are kept busy comb building, and they work with all their might and main to get the comb finished, and again, very straight combs are secured. If bees can be kept comb building, and the surplus honey extracted frequently, swarming can be kept down to a great extent, and the more completely that swarming is controlled, the more honey will be se-

number of colonies in one place; 100 colonies, if well managed, will gather all California there are many apiaries of my early apiarian experience I believed my entire satisfaction that too many colonies are a detriment and not a benefit.

As to the best bees, I believe in hybrids. It is true they are crosser than the pure races, but they give greater results in honey gathering. I have tried Italian and the Carniolan bees pretty thoroughly. The Carniolans, if kept pure, I think are more superior to the Italian race of bees. Carniolans being natives of a cold and windy climate, are admirably adapted to many sections of the country. In my experience with Carniolans, they always surpassed the Italians in every respect. The greater portion of apiarists of California have nothing but the hybrid bee, and these are blended and shaded into all kinds

The Langstroth hive, being a standard, should be adopted by every beginner. In Ventura County, this State, it is adopted there as the standard. Vengood seasons upwards of 600 tons are produced. The production of extracted honey predominates. Extracted honey, after being taken from the hives, is al lowed to ripen in large tanks, the determined by the density of the honey best. They state that standard apple when first gathered; honey that contract trees should be set 30 to 40 feet apart taking longer.

before putting on the market. A properly ripened article of extracted honey will always find a ready sale. All honey should be put up in neat, attractive packages, and properly labeled with the producers name etc. For a local 10 to 12 feet distance. Dwarf or pyramarket, five and 10 pound cans are midal pears, cherries, and plums 10 to good, also glass jars and glasses. For 12 feet, though a greater distance is shipping, the 60 pound cans are best, better where land is not scarce. The shipping, the 60 pound cans are best, two in a case. The one pound section bush dwarf apple can be planted at six for comb honey here in California is fast coming into popularity, and is being very extensively used.

Apropos of honey extractors, the reversible kinds are the ones that find favor with California apiarists, and are fast superceding the old style extractors.—S. L. WATKINS, Grizzly of plants required for an acre, at any Flats, Cal.

The rate of multiplication of which germs of contagious disease are capable is surprising. A single germ placed in favorable surroundings for growth, quickly divides into two; each of these divides into two: these four into eight. and so on, the numbers soon reaching into the thousands, and by the end of

# THE ORCHARD.

Cullings.

White lead is a good thing to use when a large limb is removed from a

From five to seven pounds of evaporated fruit can be secured from one bushel of apples. Apples from sprayed trees will keep

onger than those from trees that have not been sprayed. When spraying, see that the spray is fine, or much time will be wasted and

very little good done. By sending only good fruit to market a reputation can be made which will result profitably to the person who does

Care should be exercised with the newly-set fruit trees. Do not allow the soil to bake or crust too close around the With many fruits it is often advisable

to sell at home at a little less price than to pack and ship to market and take the risk of selling. If a tree is allowed to overbear, its vi-

tality is so greatly taxed that the next season only a small and inferior crop will be harvested. B. W. Stone, Secretary of the South

Georgia Pear Growers' Association, says the yield in that section this year will be over 20,000 barrels. Now is the time to thin those trees

which are burdened with too much fruit. In an article in a recent issue we spoke of the benefits of thinning fruit trees. Begin the warfare on borers and other fruit-destroying insects. Even if they

have not made their appearance, take precautionary steps against an expected attack. It is stated that the peach crop this year will exceed that of the pear. If this is so, pears will bring a good price. Apples will be short on account of un-

#### An Experience With Cherries.

favorable circumstances.

EDITOR AMERICAN FARMER: It was quite interesting to me to read Prof. Elliott's "Cherry Talk" in The Ameri-CAN FARMER of April 15. My experience has been considerably mixed in the last 30 years. In 1863 I purchased my present home. Among the fruit on the place were about 50 fine, sweet cherries, which would give in favorable seasons quite a profit. But there were disappointments first from heavy rains, and about the time for picking the weather was very warm. The trees were loaded, but just a few days before they were ready to pick a large part of them rotted. The most money was in the Napoleon, a large cherry that was in great demand for canning. Since then have been planting sour varieties, as there is greater demand for them, and they give better satisfaction to the buy-

Prof. Elliott tells how the trees should and how they should not be taken up. This reminds me of my experience. My the honey in any section. In Southern first venture was a dozen Earl of Richmond. They grew finely, and soon bore from 250 to 500 in each. As a natural consequence, they only have a paying much that I ordered 100 Richmonds and crop once in three or four years; whereas other kinds from an Erie nursery. These bearing large crops for several years.

Since then I have had sent me 150 trees from other nurseries, which I got at about one-half the price that I paid for the first. The tops of the trees were the finest that I had ever seen, but they had very few roots. The result was that they have been a failure. It is much better to have small trees with good roots than large trees that have few roots or have broken roots. Small trees with good roots may be made good. healthy trees with proper care and attention, while those with poor ones dies in

a few years. So much cold, wet weather this Spring made me feel a little doubtful about the cherry and peach crop this season. Cold, wet Springs have been more harmful to the crops than cold, dry ones .--GEO. SMITH, Cherry Grove, O.

The Distance to Plant. EDITOR AMERICAN FARMER: I am contemplating setting out an orchard of apple pears, cherries, and a few other fruits. Will you please inform me the best distance to set these trees; also how many to the acre?—J. N. M., Elk County, Kan.

We have read a good deal about the proper distance at which the trees should be set, but we think that the directions lengthening period of ripening being given by Elwanger & Berry to be the tains the greatest per cent. of water each way. On poor soils 25 feet may be enough. For standard pears and All honey should be properly ripened | cherries 20 feet apart each way will be sufficient. Cherries will do well at 18 feet, and the dwarf-growing sorts, Duker and Morellos, even at 16 feet. Standard plums, peaches, apricots, and nectarines 16 to 18 feet apart each way. Quincer feet apart each way.

If trees are planted six feet apart, if

will take 1.200 to cover an acre; at eight feet distant, 680; at 10 feet, 430; at 12 feet, 325; at 15 feet, 200; at 18 feet, 135; at 20 feet, 110; at 25 feet, 70; and at 30 feet, 50, The number given distance apart, may be ascertained by dividing the number of square feet in an acre (43,560) by the number of square feet given to each plant, which is obtained by multiplying the distance between rows by the distance between plants. Thus, if the plant was two feet distant in the row and two feet between rows, you would be able to get 10,890 plants on the acre. - EDITOR AMERICAN FARMER.

74TH YEAR.

THE AMERICAN PARMER

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Our readers will oblige us, when writing to parties advertising in this paper, if they will state that they saw the advertisement in Tus American Farmer. This is little trouble and costs nothing, but it helps us, and is information wanted by the advertiser.

TO ALL TO WHOM THIS PAPER SHALL COME.



Greeting: This paper is sent you that you may have an oppor-

tunity to see it and examine it, with a view to subscribing. We ask you to compare its contents, objects, and price with those of other papers, and see if you do not come to the conclusion that you ought to have it; that you cannot afford to do without it. We can assure you that if you send in your name for one year that you will find it one of the most profitable investments that you can make. We hope to make and keep it so interesting that you will think that every number more than repays you for the subscription price for a year. Please call your neighbor's attention to the

# FREE TICKET WORLD'S FAIR

All the readers of THE AMERICAN FARMER want to go to the World's Fair at Chicago, and we want to have them go. We will do more-we will give them solid help to get there. All we ask in return is that they should do some work in pushing the circulation of THE AMERICAN FARMER among their friends and acquaintances. This will be easy, for the paper is so good, so cheap, and so generally acceptable that it scarcely requires more than being brought to the notice of practical farmers in order to secure their subscriptions Our proposition is this:

We will give a first-class round-trip ticket from any point in the United States to Chicago and return for a club of subscribers, proportionate to the distance the point is from Chicago.

We ask all our friends who want to go to Chicago to go to work at once. They can easily secure a round-trip ticket by a little work in pushing the circulation of THE AMERICAN FARMER. Mark all communications "World's Fair Ticket " and address

TH : AMERICAN FARMER, 1729 New York Ave., Washington, D. C.

#### A CALL FOR A MASSMEETING II CHICAGO.

To the Wool Growers and Other Farm ers of the United States:

There will be a massimeeting of woo growers of the United States on the 28th and 29th days of September, 1893, at Assembly Hall, on the grounds of the World's Columbian Exposition

On the 5th day of October a meeting of the National Association of Wool Growers will be held at the same place. Farmers, wool growers, cotton planters, wool dealers-all are expected to be there in attendance in large numbers.

The purpose of these meetings is to consult and act for the common good of all, and for the whole American people, not in the interest of foreigners.

WILLIAM LAWRENCE, President Ohio Wool Growers' Association, Bellefon taine, O.

W. N. CONDEN, Secretary, Quaker City, O.

ENGLISH farmers furnished the United States last year \$1,000,000 worth of pickles. What's the matter with the American farmers? Do they lack the skill and enterprise to do this for themselves? Certain it is they do not lack the natural facilities.

#### WORLD'S FAIR GRANGE HEAD-QUARTERS.

It is officially announced that the National Grange, Patrons of Husbandry, have established permanent headquarters for the season at the World's Fair. where all patrons visiting the great Exposition are cordially invited to call, register, and make themselves at home. The rooms of the National Grange are Nos. 9, 10, and 11 of the Live Stock Pavilion.

Miss Alma Hinds, of Michigan, is the Office Secretary, who will furnish position, receive mail and newspapers. 14 months.

ONE MORE BIG. LONG. STRONG PULL. Wool growers are a unit on protection.

It is the general opinion, and strengthening every day, that putting wool on the free list will be ruinous to the industry in this country. There is no time to be lost in organizing the sheep raisers and petitioning the Members of Congress to let things pertaining to wool and woolens alone. There need be no doubts about Congressmen considering the wishes of their constituents. They will listen and they will do what their people want done if they are convinced that it is the wish of the people. Let there be one more big, long, strong pull taken; let every man who keeps sheep, or who believes that wool ought to be protected, become personally interested in circulat ing a petition. Remember, the crisis will come with the assembling of the extra session of Congress in September next. The damaging effects cannot now be estimated; the work of years will be gone, and it will require years to overcome the smash-up-flocks destroyed, woolen factories wiped out, capital lost, enterprise disappointed and discouraged. The markets will be surrendered to foreigners, who have for years been spend-

of all true patriotic Americans. The following remonstrance is being circulated among sheepmen for signatures. If earnest, faithful work is done the blind onslaught so carefully planned and ingeniously carried out may be prevented. If not, the crisis will have to be met, no matter how ruinous and sick-

ing millions of dollars to overthrow pro-

tection, so dear to the heads and hearts

To the honorable Members of the 53d Congress of

Whereas, as a result of a general belief that the tariff on woolen goods will be reduced and wool put on the free list, the price of wool is now below the cost of production; and Whereas we believe that if wool is put on the free list, and the tariff on woolen goods mate rially reduced, the price of wool will be still

wer; and Whereas we cannot efford to raise wool h ompetition with free wool raised in countrie like Australia, where the wool grower rents land from the Government at a less rental than we pay in taxes on our land, and receives Gov-

erument aid and encouragement; and Whereas the lands of these United States are well suited to the raising of sheep, providing that we can get a fair price for our wool and

Whereas we believe that it is to the best interest of this country to prevent the slaughter-ing of a large proportion of the sheep of this ountry, which will be the certain result of a undersigned farmers and wool growers, irrespective of party, do hereby petition and beg in the present tariff affecting the wool and

# THE FINANCIAL OUTLOOK.

We still adhere to the opinion that the backbone of the financial stringency has been broken, and that after the last of July matters will improve rapidly. It seems clear to us that the depression world, beginning in Europe, and reaching this country last Fall. From that time until Spring it was felt severely in the East, and then traveled to the Interior. It still affected the East by draining it of its currency. Then it rolled on to the Pacific Coast, and the last news from there indicates that it had spent its force, and things were getting into better shape. All the banks sucessfully withstood the demands upon them, and the lack of confidence was

The 1st of July is always a very try ing time in financial circles on account of the large amounts that have to be paid out for interest, dividends, etc. There is every indication that this period will be passed successfully, and then money will become much easier.

The main adverse features now are the fears of the effects of the suspension of silver coinage in India and dread of what Congress may do in September. If these were out of the way, the financial sky would brighten very rapidly.

At all events, the rise in the prices of wheat, corn, oats, and cotton cannot be much longer delayed. The world must have these staples, and at higher prices than have been ruling. English buyers have already entered our market and made large purchases. The prices certainly were tempting to any man who had ready money and a desire for gain Nothing in the commercial world is a more promising investment than grain at present prices. Home speculators are only kept out of the market by the caution of the banks in demanding such high interest for loans to carry grain and their distrust of grain as a col-

We wish we could speak with equal cheerfulness as to wool, but we fear that there will be no improvement in the price of wool until after it is known for a certainty what Congress proposes to do

THE world over, the experience

CATTLE PROSPECTS.

Col. Wm. L. Black, Chairman of the Bureau of Information and Statistics in Live Stock, Fort MacKavett, Tex.,

Unless something is done to check the shipment of cows to market there will soon be a more serious shortage in cattle than was recently shown to exist in hogs, and it will require several cars to correct the errors that our pr clating to the supply and demand of cattle.

In a letter to the National Provisione he says: "I am of the opinion, however, that we are rapidly approaching a period of exhaustion, and I base this opinion on the fact that fully two-thirds of the meat supply of this year will consist of breeding cows. It stands to reason there must be a great scarcity of steers in the country or they would be shipped to market. And when we reflect that this drain upon our producing capacity has been going on steadily since 1889, when the proportion of females was 25 per cent, it calls for very little argument to prove that we are very near the end of our supply and I think it would be very wise if producers would hold their few remaining cows for breeding purposes alone.

"We have practically been sending our seed corn' to market for five years. We will soon have no seed to produce

"It is certainly very unfortunate that our great cattle industry has not been managed with greater accuracy, and there is no telling how many poor cattlemen have been driven into bankruptcy in the past few years for the want of proper information relating to supply Col. Black proceeds to attack the

figures which have been sent out from the Agricultural Department. In 1884, when the cattle business was at its hight, the Agricultural Department reported 29,046,101 "oxen and other cattle" in the United States. This excluded milch cows, while last year the number was placed at 37,651,239, an increase in eight years of 8,505,138 head, in spite of the well-known fact that the shipments to market have been double what they were in 1884, and cattlemen have been using every possible means to reduce supply, and have resorted to spaying heifers and shipping calves in a way that was never done before.

This, Col. Black believes, calls im peratively for the passage of the bill which has been before Congress for some time for the creation of a Government Bureau of Information and Statistics of

There is perhaps no single industry in he United States in w are interested than in live stock. There is hardly a farmer in the land that does not depend largely for support on either cattle, sheep, or hogs, and to think of this great industry being permitted to languish for the want of a proper system is not in keeping with the spirit of the

Look at the care that is used in keeping up with the supply and demand of cotton and wheat. Is it not equally important to those engaged in the buying and selling of live stock to have correct statistics relating to the supply and demand of sheep, cattle, and hogs?

THE AMERICAN FARMER entirely agrees with Col. Black, and it has strongly urged the passage of the bill of which he speaks. We shall do so again when Congress meets.

# WORLD'S FAIR ENTRIES.

The dates on which entries for the various stock exhibits will close at the World's Fair are as follows:

For the Kennel Exhibit, which be gins June 12, holding six days, the entries will close June 1 instead of May 20. For the Exhibit of Cattle and Horses, beginning Aug. 21, holding 30 days, the entries will close July 15 instead of June 15. For the Exhibit of Sheep and Swine, beginning Sept. 25, holding 20 days, the entries will close Aug. 1 instead of July 1. For the Exhibit of Fat Stock and Poultry, beginning Oct. 16, holding 12 days, the entries will close Aug. 1.

The rule governing ownership has been modified to require exhibitors to have been owners of animals for 30 days preceding date fixed for close of

general information relating to the Exinside of two years, and sheep inside of
leaf, while now they are represented to
groves, and our people will find it still
tion, I could have gotten you a large number
of subscribers around here, but I shall send
them to you yet.

THE SILVER WITUATION.

The rapidly reviving feeling of confidence in commercial circles received a rude shock last Monday by the reception of the herei that the Council of Hindustan had decided to close the mints to the free coinage of silver. This action was precipitated by the steady fall of silver, the failure of the Brussels Monetary Conference, and the belief that the Congress of the United States will repeal the Sherman Act as oon as it assembles.

What the effect of this will be can only be surmised, but it had enough portentous elements in it to gravely disturb business men everywhere and renew the excessive timidity and conservatism from which they were depart-

India has been the greatest silver onsumer in the world. She has a population of 300,000,000, about one-fifth the people on the globe. She has had free coinage of silver for thousands of years-from time immemorial. In fact, the Hindus were probably the first to coin metals, and did this before the Greeks, Egyptians, and Romans. They have hoarded their savings in silvermade it into personal ornaments, which replace the savings banks of other countries. Last year, out of the 152. 000,000 ounces of silver produced in the world, India took 46,000,000 ounces, or nearly one-third; the United States Government bought 54,000,000 ounces, and we used 7,000,000 ounces in the arts, leaving but 45,000,000 ounces to be used by China and other nations for subsidiary and other coinage and in the arts. It will thus be seen that if India stops coining silver and the United States buying it the future of the metal looks very dark.

On the one hand it will be said that quite clearly free coinage has not helped India, for the value of the silver rupeethe standard coin of the country-has rapidly fallen. In 1884 it was worth about 40 cents, while at the beginning of this year it was only valued at 29 cents. As all the property in India is measured by the rupee, it is clear that there has been a shrinkage of nearly one-third in the short space of nine years—enough to drive the whole country into bankruptcy. On the other hand, it may be said that this seems a part of the cruel English policy of spoliation of the country. All the debts and other payments from the country to Europe will now have to be paid in a much dearer money.

The reception of the news of the denonetization brought about a prolonged and anxious consultation between Secretary Carlisle and President Cleveland, but nothing has developed as to the conclusions they arrived at, if any. Probably nothing will be done for some time, until it is seen just what the Indian Council's action has been, and what the effects will likely be. Apparently the action has been discounted in London, for the price of silver only fell four cents an ounce upon receipt of the news.

We think there will not be the serious depreciation of silver that many fear. First, because this step will greatly diminish the production of silver. There are very many mines which have worked at a small profit, or none at all, with silver at 80 cents an ounce. They will all go out of business, and no money can be had for opening up new mines. The next consideration is that the financial statement of last week showed that the principal banks of England, France, Germany, Holland, Austria, Hungary, Belgium, and Spain held altogether \$775,911,435 in gold, and \$273,926,930 in silver. That is, two-fifths of their entire holdings were silver. It is incredible to think that they will do or allow to be done anything that will seriously diminish so large a portion of their capital.

The events of the next few weeks will be full of vivid interest in this important

Much interest is developing in pecan growing in Georgia. Those who are fortunate enough to have trees already bearing find them very profitable, and their neighbors are casting about to beentries, instead of 60 days from date of come similarly favored. It is claimed that the time for coming into bearing can be shortened from 10 or 12 years THE fears in regard to the hop plant to three or four, by grafting the onein New York seem to have been only year-olds with cions from bearing trees. too well founded. The lice visitation is THE AMERICAN FARMER has always even worse than it was in 1886, when urged that more attention be given this they made nearly a total failure of the branch of industry. The first French that it is best to feed and finish cattle crop. Then they averaged 25 to each settlers found it profitable to plant pecan U. S. DEPARTMENT OF AGRICULTURE WEATHER BUREAU.

Departures from Normal Rainfall for the two Weeks Ending June 26, 1893.



Geo. E. Breck writes: "I shall start for England June 1 for my 1893 importation Shropshires.

The firm of J. B. & W. A. Shafor, breeden of Oxford Down sheep, has been dissolved, and W. A. Shafor, Middletown, O., will con-

The famous stock farm-"Erdenheim". near Chestant Hill and Philadelphia which was sold at auction June 6. John Snell, of California, has been in the

yote scalp business for two years and is \$3.700 better off than he was. 55 per scalp from the California State fund. Ex-Gov. Glick, of Kansas, has invested in a bunch of sheep. His idea is to raise sheep that shear seven to eight pounds of wool and make a carcass of 175 to 200 pounds for

Grand Lecturer of the National Grange Mortimer Whitehead, has just finished series of pleasant and successful meetings e farmers of Wisconsin, and is now at the World's Fair for a few days. He will leave there for Texas, where he has engagements until July 18, when he will go to Mis issippi and remain there until Aug. 2.

At Kansas City, Mo., a letter has been re eived from ex-Gov. Crittenden, the newlyappointed Consul-General to Mexico, stating that there seems to be cause for believing that the Mexican Government will withdraw or modify the order recently proclaimed for bidding the importation of beef excepting on the hoof. Minister Gray and Consul Crittenden recently held a conference with President Diaz and his Cabinet on the subject, and received assurances that the matter would be arefully considered.

# COMPLIMENTS.

The paper is just what you advertise it to be—a thorough farmers' paper.—B. B. STRAUB, Elkhart.

I think THE AMERICAN FARMER a very good paper, indeed.—DOROTHEA E. HOLLOWAY, Salisbury, Md.

I like THE AMERICAN

-MPS M P MCMILLAN De Cliff O. My father likes THE AMERICAN FARMER very well, as do all the rest who signed for it - FRED MCLAUGHLIN, East Poultney We are very much pleased with THE

AMERICAN FARMER, and think farmers can learn much from reading it.—JASPEE NEC-TERHOED, Michigan. I receive the paper regularly and read it all. I like it well, as I think it is as good a farming paper as I have read since I have

country .- WILLIAM BROWN Spring Lake, Fla. You have sent me several sample copies o THE AMERICAN FARMER, and I find it quite an interesting paper. I am pretty well supplied with farm papers, but can stand 50

cents more: so you can put me on your list. -GEO. SMITH, Mahoning County, I received a copy of THE AMERICAN FARMER the other day, and I think that beyond doubt it is the best farmers' paper published anywhere. Please send me some sample copies to show my neighbors, and I that many of them will subscribe,-

DR J. M. SM.TH. Kentucky. Am well pleased with THE AMERICAN FARMER. I received your favor of the 13th inst. Am pleased that you advise to go slow with alfalfa. The watch came all right and so far has been satisfactory. It has never stopped since I started it. For a cheap watch I doubt if it can be equaled.—C. F. ELLIOTT, Greene County, O.

# STILL THEY COME.

Words of Praise From Those Who Have Secured Our Watches.

D. Samuel Leonard, Thompsontown: The atch I received of you on May 20 runs O. K., and is in every way satisfactory. D. McGregor, Stamford: I received m watch all right. I think it is a good tim

keeper and am well pleased with it. Wm. Rupiper, Menomonee: I am much watch. It is a good timekeeper and better than some \$25 watches. B. B. S., Elkhart, Ind.: I received the watch and paper. Everything was as good as your word. The watch is a good time-

W. Williams, Illinois: I received my watch in good shape and I am well pleased with it. I think it is well worth the

Fred McLaughlin, Vermont: I received the watch all right. It has kept good time so far, and I am very much pleased with it or the money. John Koza, Clarkson: I received the watch good order and am well pleased with it.

t is a good timekeeper as any watch, and it is cheap at the price. James Hallaway, Dodge County, Minn.: I received the paper and the watch and chain all right. The watch goes first rate and

keeps as good time as any regulator I ever W. T. E., Wittsburg, Ark.: I received the watch and am well pleased with it. It is as good a timekeeper as anyone could ask for.
THE AMERICAN FARMER is the best farmers' paper that I ever saw, and I think it should in the home of every farmer in Arkanthe enormous quantities of rain in this sec-

#### TEMPERATURE.

The two weeks ending June 26 were warmer Mountains, with the exception of the Southern States east of the Mississippi and on the southern New England coast, where the temperature was normal or slightly below. reatest excess in temperature occurred in the Lake Superior region, where it amounted to about nine degrees per day, while the excess amounted to six degrees or more over a region extending from the Dakotas eastward to Lake Huron. The region over which the temperature excess was more than three degrees per day includes portions of New Mexico Texas and the entire region from Wyoming and Colorado eastward to Western New York and on the Pacific Coast it was cooler than

In the northern Rocky Mountain region usual, the deficiency in temperature being greatest on the Northern Pacific Coast, where it exceeded six degrees per day.

#### BAINFALL.

During the two weeks ending June 26, the ainfall was less than the average over much the greater portion of the country, the region of excess being of limited extent, and for the most part confined to the Atlantic Coast In eastern Kansas, over the western half of Missouri, in northern Minnesota, from three and a half to five inches of rain has fallen. On the west Gulf coast in the vicinity of Galveston the actual fall has amounted to about four inches, while from two to nine inches have fallen on the south Atlantic coast, being heaviest in the Carolinas

Throughout the Mississippi, Ohio, and upper Missouri valleys and generally over the lake region the rainfall for the two weeks has been less than usual, and on the central gulf coast the deficiency amounts to from two to three inches. The deficiency exceeds an inch over much of the upper Mississippi and upper Missouri valleys and upper lake region practically no rain has fallen during the two eeks, but the absence of rain in those regions at this season is not unusual.

Upon the whole it may be stated that the weather conditions of the two weeks have been generally favorable, although drouth has prevailed to a greater or less extent in New England and the Middle Atlantic States, and in some portions of the West and Northwestern effects are serious in portions of Kansas, Nebraska, South Dakota, and Minnesota, while some damage has resulted from heavy rains in South Carolina and Georgia

SPECIAL TELEGRAPHIC REPORTS. New England.-Temperature below and rain ll above normal, except in eastern Maine, nere drouth still continues; hay crop will be average one generally, and some have com-med to cut; small fruits and vegetables look.

New York.-First portion of the week excep New lork.—First portion of the week care-onally dry and warm, latter portion cool, with howers; rain badly distributed but generally afficient; grains fair; grass slightly injured by routh; large fruits dropping badly; berries ne; hop lice becoming numerous. New Jersey.—Temperature about normal; sun-hine below and rainfall above normal; heavy

showers in all sections during last half of weel and general rain to-day have effectually broken the drouth condition and great the drouth condition and greatly improved t prospects of all crops; wheat and rye ready sulranta.—Rains and cooler weather

Pennsylvania.—Rains and cooler weather receity benefited crops; some sections still dry; wheat ripening rapidly; corn and potatoes improving; hay and oats light; rye heading well; obacco all set; fruit fair.

Maryland.—Recent rains greatly benefited rrowing crops; wheat and hay harvests procressing; large yield of wheat; small but excellent crop of hay; tobacco planting nearly inished, some replanting, owing to damage from warms, corn well grows; the neach crop

on works, prospect. Prospect. Prospect. Virginia—Temperature and sunshine nearly ormal; rain fell in local showers, amounting o from a half to one inch in middle and western ortions and very light in southeast; wind of Vednesday and Thursday caused slight damage;

onditions generally favorable.

North Carolina.—Rainfall below normal; tem-North Carolina.—Rainfall below normal; temperature about normal; sunshine average; weather conditions generally favorable; all growing crops doing well, but cotton still backward; greater part of wheat harvested, and nearly all saved in good condition.

South Carolina.—Very little work done; cotton continues grassy and is 10 days late; corn turning yellow from rain; serious injury to both cotton and corn crops expected; peaches roting yellow from rain; serious injury to othe cotton and corn crops expected; peaches rotting; grapes dropping off; gardens tine. Georgia.—Too much rain except in southwest portion; cotton small, growing slowly, and injured slightly by insects and heavy rains in north and central sections; wheat and oats about all harvested; much fruit blown from trees in southern districts; melons ripening, shipping in progress.

riping in progress.

Florida.—Temperature slightly excessive; nowers badly distributed; crop prospects connue encouraging; corn and cotton need rain; incapple, melon, and peach abluments continue; overment of near oron expected to begin this

Alabama.—Temperature and rainfall slightly below normal; sunshine about normal; gotton stowly recovering, plant still small, and several weeks behind stand of last year; corn improving; depredation of insects decreasing.

Mississippi.—Temperature slightly above normal; sunshine abundant; local showers unevenly distributed; conditions generally favorable; crops clean and improving; truck plentiful.

Louisiana.-Hot, dry weather, and sunshing Louisidia.—Hot, dry weather, and shamle very favorable to crops and for killing grass and weeds; crops show general improvement over preceding week; laying by of cane retarded by labor being used on levees; cotton growing fast: corn laid by and recovering from effects of recent heavy rains; rice needs rains; few casulaties reported from hot weather; some complaints of rust and worms in cotton; river falling gradually and water in northeastern parishes receding slowly; a section in vicinity of Rescue crevasse is a vast lake, and there will be much damage to cross in that section.

tosoue crevasse is a vast lake, and there will be much damage to crops in that section. Texas.—Dry weather during week has im-reved cotton, except over western portions of otton district, where more rain is needed; in nost sections corn is generally in fine condi-ion; wheat yielding better than expected; out rop light in many sections, resulting from ust. Arkansas.—Weather generally favorable fo il crops and for harvesting wheat and oats hich are about the average; cotton and corn approved and growing rapidly; continued fair

mproved and growing rapidly, continued and weather needed.

Tennesses.—Warm sunshine and occasional showers have been beneficial to growing crops; tobacco is in very good condition; cotton and corn growing nicely; wheat, clover, and grasses being secured in good condition; berry crop fire; peaches ripening; stock in good condition.

Kentucky.—Temperature slightly deficient; sunshine normal; heavy showers, well distributed; wheat harvest about completed, average crop; hay crop fine; barley and oats good;

obacco planting nearly finished: fruit outlook nfavorable.

Missouri.—Temperature and sunshine above

proving.

Illinois.—Temperature above, sunshir nearing completion in southern poorn, wheat, and meadows generally Indiana.—Precipitation excessive cortion, and deficient in norther

portion, and deficient in northern; average temperature and sunshine, very favorable; large crops of clover, nearly all saved; wheat harvest commenced; corn and other crops, except fruit, in good condition.

West Virginia.—Temperature and rainfall above average; wheat and hay cutting general; oats and corn promising; fruit crop fair; stock doing well; showers latter part of week increased growth of vegetables.

objections well, showers interpart of week in-remand growth of vegetables.

Ohio.—Showers advanced the growth of corn; obacco and grass in fine condition; clover, parley, and wheat harvest progressing; wheat well filled; good quality rye ready to harvest; obacco plants all set; general wheat harvest in progress in south. tobacco plants all set; general wheat harvest in progress in south. Michigan.—Temperature and sunshine above and rainfall below average; the general condition of all crops is fully up to the standard; wheat, oats, corn, and rye have improved; fruits and vegetables above the average; having

dition of all crops is fully up to the standard; wheat, oats, corn, and rye have improved; fruits and vegetables above the average; haying begun; some wheat soon ready to cut. Wisconsin.—Warm, with beneticial showers, but more rain is needed; corn and potatoes up to average; haying general, good crop; wheat harvest will begin in 10 days.

Minnesota.—Slightexcess of temperature; precipitation nearly normal, but badly distributed, causing slight drouth in some Counties; wheat generally doing well, except late sown, which is thin and weedy; clover harvest begun and crop above average; corn in excellent condition; strawberries ripe, but poor yield.

Iouta.—Temperature above, rainfall generally below, and sunshine normal; corn generally clean and has made seasonable growth; haying begun, with fair yield; oats somewhat lodged by wind but may come up.

North Dakota.—Weather favorable, except in south-central Counties, where it has been tooled and the contract of the

North Dakota.—Weather favorable, except in south-central Counties, where it has been too hot and dry; wheat and rye beginning to head; many complaints of weeds and in lury to gardens by cut worms and other insects.

South Dakota.—Temperature and sunshine above normal; rainfall considerably below average; generally rain is much needed, but sections have been relieved by showers; corn doing well; small grain and grass, except in some localities, need rain.

Nebraska.—Week hot and dry; small grain much injured by drouth; corn not grown well, is in excellent condition, and as yet uninjured by dry weather.

ample in northeast and southeast portions; wheat harvest becoming general; corn and grass fine in east half of State; crops failing in west half of State, hot winds 25d. Oklaho

Okiahoma.—Temperature and sunshine above to rain; wheat all in shock or rick; bats being harvested; cornsuffering very much from drouth and bugs.

Montana.—Temperature and precipitation below normal; rain needed badly in Chateau County; black beetles are damaging the potato

Wyoming.—Temperature above normal; no erops: but ranges and crops not irrigated are drying up rapidly.

Idaho.—Crops made but little beadway during last week owing to cold nights and dry, windy weather; potatoes slightly injured by frost on the 20th; wheat, rye, and barley in northern portion looking fine; hay crop promising; average crop of fruits.

Colorado.—Temperature and sunshine above average, injugiously affecting unitrigated crops and range grass; precipitation deficient; irrigated crops doing well; first crop of alfalfa secured; good fruit prospects in western portion; ditches low in southern Counties; rain needed.

New Marico.—The week was very warm and dry: all orops and cattle ranges are suffering

fry; all crops and cattle ranges are suffering and dry weather, favorable to barvesting and to irrigated crops; streams and springs setting low; cattle and ranges need rain very much. Utah.—Temperature slightly below normal, but sunshine throughout the week, making it very favorable for the growth of crops; no rain; good week for haying, which is in progress; crops will be lighter than the average. Washington.—Weather generally unfavorable to vegetation; rainfall, temperature, and sunshine below average; cereak in excellent condition, so is every kind of fruit except apples, plums, and cherries, which will be a short crops more sunshine will be of great benefit.

Organ.—Continued cool, cloudy weather; few rains latter part of week very beneficial; grain

plums, and carries of great benefit.

Oregon.—Continued cool, cloudy weather; few rains latter part of week very beneficial; grain crop growing finely; hay crop very heavy; hops growing rapidly, lice appearing; fruit and berry crop large, except peaches and cherries.

California.—Abnormally cool weather benefited filling out of late grain, though it retarded ripening of fruits and berries; hops doing well excepting new yards, which are somewhat backward; frosts reported from Del Norte. Nevada, Plumas, Sierra, and Santa Barbara Counties, nipping pears in last-named County.

Mark W. Hamtington,

Chief of Weather Bureau.

# NEW PUBLICATIONS.

From the Secretary, S. E. Prather, Spring field, Ill., we have received a copy of the proceedings of the 12th annual meeting of the American Southdown Breeders' Associa-tion, held at Springfield May 31.

The short stories and poems of Worthington's Illustrated Magazine for July are fully up to the standard, and the departments contain a number of well-chosen articles that deserve careful reading. "Our Young People" has a most excellent story, and the tastes of the little ones, the housewives, the puzzle lovers, and those who delight in out-of-theway bits of information have been admirably especially adapted to the varied requirements of the American family, and as such may be safely recommended to all who desire esome, pure, and helpful read-Published by A. D. Worthington & Hartford, Conn.; \$2.50 per year, 25 ents a single number.

William Brown, Spring Lake: I received my watch in good order and was well pleased with it. I have hung it up against the office wall, where it can be plainly seen. I am not ashamed of it, as it is running and keeps as good time as any watch.

Scientists say that if the bed of the Pacific Ocean could be seen it would disclose to view several mountains, with truncated tops, scattered over it. These mountains would be perfectly bare at their bases, and all around their tops they would be covered with beautiful vegetation of coral polypi.

How the Fertility of the Wil Slips Away and How Replaced.



HE ABANDONED FARMS of the East; the old sedge fields of the South; the of the North and great West

all tell a tale of waste, "wil-ful waste," and its inevitable result, "woful want," is making itself felt very sensibly in annually decreasing yields. This, when coupled with unremunerative prices for almost all kinds of farm products, causes one most all kinds of him produces, causes one to stop and inquire: What will the end be? Whither are we drifting? If, in spite of our having saved and applied each Spring all the manure that had been made throughout the year, our lands have steadily gone down hill, and the crops, the result of our labor, are aneasing in both quantity and quality; if, as in the case, it takes at least twice as much work to make an unprofitable crop on poor land to what it does to make a paycrop on fertile soil, and if it has taken but a short 50 years to bring our lands from a fertile condition into that of an infertile and unproductive state, what may we expect (un-der the present system) in the next 50 years? The past and present systems have been and are to take from the land angually as much as possible, and to return to the land (in the way of plant food) as little as possible. It has been and is neither more nor less than a system of robbery. Even our recuperative methods are at best simply "borrowing from Peter to pay Paul." We take manurial products of a large farm and scatter them over a small field, then vainly imagine that we are actually increasing our stock of fertil-ity, when the fact is we are not even holding

All vegetable products may be divided into two groups or classes. First, that which disappears in the form of gas during the process of burning, and which is seldom less than 95 per cent. of the whole weight and, second, that which is left in the ash, which is but five per cent. of the whole; yet this indestructible part that is left behind after the fire has done its work—this little, seemingly insignificant five per cent .- is of such great importance that a crop cannot be made without it. Plants do not, neither can they, grow by simply having a foothold in Their growth, on the contrary, depends on this five per cent. of ash, and the proportion of it which the soil contains in a more or less soluble condition. It is not necessary for me to dwell upon the 95 per cent. which was obtained from the atmosphere by the growing plant, as the parts which pass off sphere are precisely the same as the constituents of the atmosphere; consequently the plants may and do obtain these supplies directly from the atmosphere again; consequently the proper treatment of the five per cent. of ash or mineral matter is the problem for the farmers of America to study and work out. Upon the proper elucidation of this problem lies the future fertility of our soils, the profits of agriculture and horticulture, and the prosperity of all that large and respectable class who till the soil for a livelihood. We are well aware that 99 out of every 100 of our farmers realize the fact that (in spite of all that may have been done heretofore to prevent it) the fertility of our soils North, South, East, goes but few take time to consider. To give the how, why, and wherefore is the object of this article—how the fertility gets away, it takes harder work year by year to e profitable crops, and how to remedy ters. As stated above, we shall omit the carlon, hydrogen, and oxygen, and confine ourselves to the nitrogen, phosphoric acid, and potash (likewise omitting lime) taken off the l annually in the various crops per acre.

The farmer in taking from his field 50 bushels of corn removes of nitrogen, 48 pounds; potash, 11.1; phosphoric acid, 17.7. Worth about \$10.50 at the ruling market price of those chemicals.

A crop of beans, say 25 bushels, takes of nitrogen, 61.2 pounds; potash, 19.6; phosphoric acid, 17.8.

A crop of cotton (including seed), say 300 pounds of lint, removes of nitrogen, 20.80; potash, 9.85; phosphoric acid, 6.84. If the seed were scrupulously returned to the soil

(as they should be), the account would stand thus: 300 pounds of lint takes from the soil of nitrogen, .72; potash, 2.22; phosphoric acid, .18. It is easy to be seen that the amount of fertilizing materials removed by it is hardly worth consideration when compared with other more exhausting crops.

A crop of oats, say 30 bushels, remove of 17.50; potash, 5.25; phosphoric

A crop of peanuts, say 40 bushels, or 920 pounds, remove of nitrogen, 29.48; potash, 8.25; and phosphoric acid, 6.05. One ton of clover hay removes of nitrogen,

42 pounds; potash, 46; and phosphoric acid. One acre of forage corn, raised for the siles, yielded 20 tons, or 40,000 pounds. This contained of nitrogen, 113 pounds; potash,

120; and phosphoric acid, 44. If the farmer sells milk, then in every 100 pounds of it he sells of nitrogen, one-half pound; potash, one-quarter pound; and of phosphoric acid, one-fifth pound.

If he be an horticulturist and sells fruit. then for every crop of grapes, say 10,000 pounds per acre, he sells of nitrogen, 1.70 pounds; potash, 5.0; phosphoric acid, 1.52. Apples, 20,000 pounds per acre, removes o

nitrogen, 12.0; potash, 16.00; phosphoric Pears, 20,000 pounds per acre, nitrogen,

12; potash, 36; phosphoric acid, 10. Plums, 30,000 pounds per acre, nitrogen, 167.7; potash, 51.60; phosphoric acid, 13.20. Oranges, 20,000 pounds per acre, nitrogen, 53.80; potash, 55.60; phosphoric acid, 13.40. A crop of wheat, say 30 bushels per acre,

removes of nitrogen, 45 pounds; potash, pounds; and of phosphoric acid 23 pounds. The above tables give some insight into amounts of plant food (i. e., soil fertility) removed from the soil by a few of the ading crops; these elements, i. e., nitrogen, potash, and phosphoric acid (including lime being, according to all experience, the only ones of which the replacement need ordina rily be considered in fertilization. The above amounts are expressed with reference to per acre. As soils differ in degree of fertility o there will be great variations in the annua yield per acre; consequently the amount of plant food or fertilizing elements removed by each crop differs accordingly. By the aid of a little arithmetic each one may calculate for uself the data suitable to his own individnal case. We have tried to show in above tables how fertility slips away. It seems almost superfluous to state that if the named elements, viz., nitrogen, potash, (lime where needed), and phosphoric acid are not replaced by the hand of man, it becomes simply a question of time when the land will impoverished, unproductive, exhausted, and the cultivation of it so unprofitable that soil tilling becomes a very unsatisfactory and precarious means of subsis the soil tiller, disheartened, poverty stricken, a drudge and mere mechani-cal machine. Farmers know full well how to impoverish land; it is a duty they owe to themselves, to their families, to posterity and to their country, to study the art of main-

owes to the great, grand, glorious, high, and noble calong they have esponsed to elevate agriculture until as an art and a science it is agriculture until as an art and a science it is surpassed by no one of the other arts and sciences, and equaled by but few. It should be constantly borne in mind that if our soil tillers will but bring to agriculture the same amount of education, intelligence, industry, perseverance, ambition, and determination that is essential to success in any other career, let it be professional or otherwise there is let it be professional or otherwise, there is nothing to hinder their attaining as great, if not a greater, degree of success and financial prosperity than can ordinarily be attained in any other calling. Proficiency must hence-forth be the watchword; it is the open seame—the key that will in future unlock the various avenues of (not political but) agri-cultural advancement.

No farmer can sell any species of crop off the farm without selling more or less fer-tility. There are but two methods known to man by which this lost (for all fertility that is sold off the farm is lost) fertility can be replaced; one is by purchasing concentrated cattle foods, feeding same to stock and scrupulously saving all the manure obtained there from. The other method is in purchasing commercial fertilizers, supplementing same with green manuring and thorough cultivation. The former plan, it is needless to add, can be followed by but few, comparatively; while the latter can be put in practice profitably by anyone and everyone wherever located. I am well acquainted with hundreds of area that but a short 20 years are would accurate the catter of the catter years ago would produce one bale of cotton of 50 bushels of corn without fertilizing, that to-day are exhausted and thrown out of cultivation. If fertile soil can be exhausted in 20 short years, what will be the condition of our soils, and more especially of the soil tillers our children, 50 years hence?-G. H. TURNER Lafayette County, Miss.

#### SIX SUMMERS IN FLORIDA.

A Writer Gives J. L. B. a Few Points

About the Balmy Climate. EDITOR AMERICAN FARMER: In your issue March 1 a letter appears—"A Summer in orida"—and having read the same, although not a Floridean nor American, and in no manner interested in land or its interest I beg most emphatically to state that J. L. B must have been in some strange port in the center of Orange County. I have resided in Florida for six years, and have seen the weather in many phases—"a spell of drouth;" but has J. L. B. risen in early morn and seen the whole land covered with a dew refreshin every blade and giving life and energy to al plant life? We certainly have a glorious sunshine, but none too much for the latitude and longitude of the State, and I firmly assert that wherever J. L. B. resides he has more heat and suffers as much from insect life as

Certainly dwelling near some creek or stagnant water you have the mosquitos; but one would infer from J. L. B.'s letter all Florida was the same. In the first place, I have not seen rain continuing a day and night during the six years' residence. In our rainy scason, which is about June, etc., we have some heavy rains, but these only last a short time each day. I have never yet had my rest disturbed by any doleful wail, and had J. L. B an ear for music or an eye for the beautiful he would never have written such a letter. I have yet to feel the annoyance of all the ills encountered by him, and have spent six Sum mers here. J. L. B. has surely landed in the Everglades among the Seminole Indians.

This State, in its almost infancy, has made rapid strides, and should the same progress esperity continue that has been n fested during these recent years she will yet attain a position equal, if not surpassing, many of the Northern ones.

many of the Northern ones.

Our County (Orange), in which I reside, in the matter of roads, spends upwards of \$5,000 yearly in making and keeping them, and for railways we have made, and in full operation, bundreds of miles, giving facilities of travel from north, where the boundary line of Gler and Tampa Bay, southwest; Jacksonville to

J. L. B.'s mind has surely been perverted ; potash, 11.1; phosphoric acid, 17.7. about \$10.50 at the ruling market | Florida, where the invigorating breeze from In harvesting a crop of potatoes, say 175 bushels, he takes from the soil of nitrogen, 35.7 pounds: potash, 20.96; and phombaric the Gulf and Atlantic cools the air and helps happy homes and free from Winter's snows and blizzards. A cold wind, piercing to the marrow bones, blowing down houses, killing people, and devastating the land, such we have not here. I do wonder where he landed in his schooner. The next time he writes shall be pleased to see him and give my name with no hesitancy, as I fully am under the impression J. L. B. has been laboring under sea sickness while en route to Florida in his little schooner.—JAMES EDGAR, Gabrielle,

# HEALTHFUL NEW MEXICO.

The Climate and Crops of a Seldom-Heard-of State.

EDITOR AMERICAN FARMER: Anthony situated on the 32° N. latitude on the State line between New Mexico and Texas, altitude about 2,600 feet, in the famous Mesilla Valley, acquired from Mexico by purchase in 1853. The valley lies between the Oregon and El Paso Mountains on the east and a high mesa on the west. It extends from Fort Selden, N. M. (now abandoned), to the Southern Pacific Bridge, five miles above El Paso, Tex. It is about 55 or 60 miles long and about five miles wide, of bot tom land and about the same of mesa land. This valley is probably the first place in the United States where irrigation was extensively carried on, for here at the time of the Spanish invasion the natives were found cultivating the soil by irrigation. Here the people were found living in houses built of adobe (or sun-burned brick), and, by the way, the most comfortable house found here this day. The only timber in this part of New Mexico is the cottonwood and black willow, which grows very fast in the bottom-

The soil in the bottom is some places clay, some sandy, some lava ashes, and some thoroughly mixed. It is well adapted to the of wheat and other small grain. Vegetables, such as cauliflowers, cabbages, oniens, and sweet potatoes produce magnifi-cient crops. All of the different family of nelons grow large, of delicious flavor and

The staple among crops here are alfalfa, of The staple among crops here are which we cut from three to five cuttings per which we cut from three to five cuttings per season (according to amount of water), yield being about one ton per acre per ting, with an average value of \$10 per ton. F. O. B., at this station. Grapes: of these we raise the Missions, brought here by the early Spaniards, a fine table and wine grape; the Muscat, of Alexandria, brought from California a few years ago; the Muscatell, the Flaming Toka, and many other varieties. These grapes are planted out from six to eight feet apart each way, and produce at the age of three years old and upwards from 10 to 20 pounds of grapes per vine. They are worth from two to five cents per pound here.

Apples are also a part of the money crop.

It takes only five years to get an orchard in full bearing after transplanting trees one year old. They will commence bearing the second year and keep increasing, but will not get into full bearing before the fifth year. Such a thing as a wormy apple was never seen here until one year ago last season, but the codling moth has got here at last. We hope it may be wiped out soon. The early peaches are not a sure company account of the It takes only five years to get an orchard in peaches are not a sure crop on account of the liability of a cold spell in Spring, but late peaches are considered safe and do well. peaches are considered safe and do Plume, prunes, and cherries have not taining (if not restoring lost) fertility.

It is likewise a duty that every soil tiller to whether they will be a permanent success

or not. There are trees of each in several orchards that first bore this past season, and all are reported as having done well. Apricots, figs, pears, and quinces do as finely as could be desired, except that the fig is liable to be killed down to the ground each Winter, though it takes a fresh start and bears two crops during the season. Here the fig is more of a shrub than a tree.

A new industry being started here on our mesa land and running high up into the canyons of the mountains is a plant which looks something like the yellow dock. It commences to grow in October and grows all Winter, maturing about the 1st of May. It is called canaigre, and possesses more tannic

is called canaigre, and possesses more tannic acid than anything clae known except one species of sunach. The root looks very much species of sunneh. The root looks very much like a sweet potato, and is said to yield under cultivation and irrigation about 100,000 pounds per scre. It is worth \$85 per ton in London, England, and freight from here there is \$15 per ton. Plants are being creeted both at Deming, N. M., and El Paso, Tex., to extract the tannie acid.

There are unpile schools in almost every

There are public schools in almost every recinct of the County, and at Las Cruces, our receiper of the County, and at Las Cruces, our County sent, there is a school for young ladies conducted by the Sisters of Loretta, and also the Territory Agricultural College and United States Experiment Station. This school is destined to become of vast benefit to the people of the Territory. People who require a dry, bracing climate could not do better than seek a home in southern New Mexical States. Mexico.-E. A. CHAPPER, Anthony, N. M.

#### Life in Texas.

EDITOR AMERICAN FARMER: Here we are out in southwest Texas, a sunny, Summer land, where roses may bloom in the open yard all the year. Bee County is 70 miles southeast of San Antonio, 100 miles west of Henrica and Archive formula west of the southeast of San Antonio, 100 miles west of the southeast of San Antonio (San Antonio Miles West of San Houston, and 40 miles from the coast at Aransas Pass. You will understand better why our climate is mild when I tel you that we are 75 miles south of New Orans, about on a line of the orange-growing district of Florida. But the heat of our Summer is tempered by the ever refreshing

With us at the present writing (June 3) early corn is in roasting ear, cotton is bloom-ing, and watermelons are beginning to ripen. We have had good seasons, and all these

This is a great Winter vegetable country, which is quite a profitable industry for Northern shipment. Almost all fruits, except apples, including oranges, do well. Our great leading farm crop is cotton; the staple is fine and yield heavy, because of the long picking season—July to December.

It must be remembered that while we are

new and undeveloped. It is a natural range stock country, with green grass all the year, and it is only recently that the big pastures have begun to be cut up and offered to farmers in small tracts. Fine lands can be obtained at \$5 to \$10 per acre, on easy payments. This is bringing us an influx of good people as these facts become known.

Bee County is a gently rolling, prairie

country, some open, some brush; timber enough for posts and fuel; soil, a sandy loam, very fertile, resting on a red clay subsoil. Roads hard and excellent. County has two Beeville is County seat, 2,500 population; good, growing town, excellent

hools, churches, and society.
Our climate is not only mild, but very healthful. Air dry and pure; no swamps, stagnant water, or malaria; breezes fresh from the salt sea and invigorating. Many people with throat and lung troubles come here to get a new lease on life. But what we want is good people to help us develop this grand, new country. Only seeing is be lieving, and I will gladly give any information in my power to home and health hunters. -J. W. MAGILL, Beeville, Tex.

#### THE WEED PESTS.

The Numerous Enemies the Farmer has to Contend With.

EDITOR AMERICAN FARMER: We are aving very hard times in this section. The larger farmer may pull through, but the smaller ones will go under, as they are not able to hold their crop for higher prices. In a recent any way to destroy them. The Canada thistle is the hardest weed that I have ever undertaken to destroy.

We have had a weed law in this State for

over 20 years, but that law, like many others, not worth the paper it is written on. do not take near so much interest in the welfare of their constituents as they do in their own gain from the office that they hold as a gift from the farmers of their district. They seldom stop to think of the many back laws on our statute books, or of the Canada thistle and other weeds and pests that the farmers of this section are fighting single handed. This thistle if let alone for a few years would drive all other weeds out. prends much faster than other weeds, as

arts new plants from both seed and roots. Among the worst weeds I know of here, with the exception of the Canada thistle, are the milkweed, wild outs, and a grass which reembles the redtop, with a root that makes It greatly resembles what was called "kinkke" in Norway, but is much harder to ight. Then we have the burdock, which is bad enough when it takes possession of the fence corners and the timber land which is

eit for pasture.

1 think that Governmental aid is required for the destruction of these weeds, as or of the farms they have such a start that the owner can do nothing with them, and often abandons the place in despair. When any law is made on this subject, officers must be having become everyone's business to report dead letter. Few of our farmers would wish to make complaint against a neighbor, and the weeds would have their growth unmolested. We need the support of the Govern-ment in destroying this pest, or at least we need the Government to lead and organize us in the battle. We should have officers to exmine the weeds and work for their de struction; but they should not be paid \$1,000 er year, while the producers can barely make living from the products of their labor. But how can we obtain an honest Govern ment? We select (or suppose that we do) and elect men to do the work for us as onestly as though the State was their farm But do they do it? No. Their acts prove hat they have sold us to the highes oidder. This has been true in the matter o railroads, bonds, greenbacks, the National Bank system, and various other matters too is to mention. How are we to remed

I will propose a stronger oath than the present one, which has proved to be only a form, of no binding effect whatever. Wha fature happiness or punishment of the soul? The oath I propose is to the God precept, not now clearly understood, but which our reason ells us must exist. We may put in this prayer a hope for the punishment, not only of rselves, but of our forefathers, if we do not do the duties of the office to the best of our ability. Much more could be written. I like to add my thoughts to the vast sea of neressity, and want to see the great ship of State float safely into the harbor of true liberty.— ALRY. JORGENSEN, Keystone, Minn.

Any of our young friends can earn s watch and chain in an hour by getting six of their friends to subscribe for THE AMERICAN FARMER, at 50 cents each.

# GROWING OATS.

How the Crop is Prepared and

Grown in Kansas

EDITOR AMERICAS FARMER: In the usual Kansas rotation of com, followed by corn con-tinuously until the land begins to show signs of exhaustion, when perhaps a crop or two of oats is grown to "frest" (?) the tired soil.
Oats, of course, follows corn. As the corn crop is usually husked from the standing crop is usually husked from the standing stalks, the first operation in the preparation of oat ground is to chop the stalks into pieces about a foot long. This is accomplished by, means of a sulky stalk cutter, drawn by two horses and taking one row, or with the three horse cutter, which cuts two rows at a time. Under the carriage, on which the driver's seat is located, are hung two heavy, cylindrical, est-iron knife heads, about two and a half eet apart. Between these are bolted the thin, sharp, steel knives, five in number, edges out. Just in front of the knives are two long, curved prongs, one on each side of the row, with thin points resting on the ground. With a convenient lever the driver lowers the knives to the ground, throwing any desired weight upon them by means of a coil spring on each side of the machine. The team starts, the hooks draw the tangled stalks in line, the ground in quick succession, with force sufficient e cut through stalks and into the ground

lightly.

The land is now ready for the seed, and it is mportant that this should be of a reliable variety and of good quality. The varieties most grown here are "Red Texas" and American Banner. The first named is rather most popular, as it is a little earlier than the Banner and usually yields better, though the feeding qualities of the white oats are superior, as are also those of the straw. The red out has short, stiff straw, almost devoid of lades when ripe; but it stands up well, and being early, often escapes a spell of very hot, dry weather, which injures later sorts.

It has been found by careful experiments at the Kansas Experiment Station that the yield from heavy, plump seed is considerably larger than that from lighter seed. It pays, therefore, to run seed oats through a fannin mill before sowing. The light grains blown out can be used for feed. A farmer in this has by this means maintained and possibly improved the quality, while his mose careless neighbors complain of their oats running out," and go to him for seed, of e sells large quantities at an advance

over the market price. The seed is sown at the usual rate of three ushels per acre, with a broadcast seeder attached to the rear end gate of a farm wagon, motion being imparted from one of the wheels by a sprocket rim and chain attached thereto. With a good team and another wagon containing the seed conveniently located, 40 acres per day may be sown in much better manner

than is usually done by hand.

After sowing, the land receives a good going over, or through rather, with the two-horse cultivators, after which a thorough harrow-ing completes the job. This method of seeding has been found to give better yields on our light, porous soil than plowing the land before sowing, and it materially reduces the cost of production.

We have not had good results from Fall

plowing of cornstalk ground for oats. The cavy, retentive, clay soils of northern Ohio where we formerly lived, are liable to run together and bake to such an extent that seed-ing without replowing is rendered difficult. and the plants are more susceptible to injury

Prairie land, on the other hand, becomes so loose and mellow by the action of the frost that both soil and seed are sometimes blown off of exposed knolls by the flerce Spring winds. Several years ago I farmed for an old man who was fresh from one of the States east of us where conditions are far different. He had no patience with Western methods and had me plow the out field thoroughly in the Fall. In Spring it was well harrowed both ways and then gone over with the plank drag. Grass seed was sown, and the poor old man did wish it, he thought, would put the seed in perfect order. Well, the winds blew, but the rain did not fall, and the dust left that upland was well distributed on the end of an adjoining cornfield. And again, the land being so mellow allows teams and binder to sink and cause hard work when harvesting. dust also boils up among the gearing, causing it to run hard and wear rapidly.

One of the most important points in oal growing is to get the seed in the ground early. If the ground freezes after seeding, why let it freeze; it will thaw again, and the crop will,

as a rule, be better than later sown.

I believe we do not, as a general thing, cut oats soon enough. Those fields cut when con-sidered almost too green nearly always yield well, as there is no loss by shattering, and the straw is of much better quality than if allowed to become ripe. Bright straw makes good feed and good bedding, thus adding to the comfort of farm animals, both inside and into manure it makes a very valuable fertiliser to return to the land .- Gro. T. PETTIT

#### FARMING IN RHODE ISLAND. A Snug and Prosperous Little Community.

EDITOR AMERICAN FARMER: "A little farm well tilled," is the impression one gets in passing through "Little Rhody," one of the 13 original States, and smallest in the

The State of Texas has 83 Counties, each of which is larger than our little sister, and Texas would, if divided up, make 212 States the size of "the State of Rhode Island and the Providence Plantations" (its official title)

ways than one. She outranks in proportion to size all other States in value of nres. Number of looms, 30,274; spindles 1,649,295, using 161,694 bales of cotton, and giving employment to 22,228 persons. She ranks second among all the States in manufacture of cotton, flax, and linen goods Value of cotton goods manufactured, \$24,609, Value of cotton goods manufactured, \$24,609,-461; woolen goods, \$15,410,450; worsted goods, \$6,177,754; rubber boots and shoes, \$1,455,420; dying and finishing textiles, \$6,874,254; foundry and machine shop products, \$6,281,707; jewelry, \$5,650,133

She has 6,216 farms, three of which contain over 1,000 acres each. Hay is the most valuable crop; yield, 81,708 tons; potato crop, 845,185 bushels; corn crop, 390,000 bushels; oats, 161,000 bushels. Latest reported dairy products: Milk, 3,831,707 gal lons; butter, 1,007,103 pounds; cheese, 67, The great Corliss engine, which kept all the

busy wheels in motion in the great machinery hall, covering 22 acres of ground at the Cen-tennial Exposition in 1876, was made in thode Island, and the mighty successor to it in the larger, breader, and grander World's Fair at Chicago this year has the same place

With her large cities and villages, her seaside resorts, and her close neighbors in the other cities of New England, her farmers have the markets which, with good prices, make the incentive to progressive agriculture. There is one truck farm which contains nearly 1.000 acres, and her orchards, berry fields, and market gardens repay the skill and in

poultry interest has been Of late years the poultry interest has been greatly extended, and scarcely a farm but what has its improved and comfortable house and yard; some farms dozens of them, and covering acres of ground, for the raising of chickens, ducks, and turkeys, or for the pro-

duction of eggs. Incubators are in quite gen-

Being thickly settled, and having been at it for a long time, as it is over 250 years since Roger Williams came into the State with his colony, Rhode Island now has many miles of good country roads, made permanently with crushed stone upon good foundat and more miles are being made every but her people have not gone wild over roads and rushed into wild schemes of bonded debt, as various "promoters" are attempting to get some other States to do. She has plenty of raw materials in the shape of stone and gravel close at hand in all parts of the State, and she has plenty of inhabitants, industries, and capital, which when fairly and equally taxed yield the revenue necessary to build the good highways in which all are interested.

A day spent at the Agricultural Experi-ment Station at Kingston gave proof of the good work being done in a practical way in promoting a more successful agriculture. The farm, its buildings, and other implements are all well adapted to the purposes intended. It was supposed that about 20 intended. It was supposed that about 20 students would be about the limit in scien tific and practical agriculture for so small a State, but 60 are now enrolled, and in the class rooms, chemical laboratory, greenhouse, nursery, experimental fields, orchards, and among the live stock, poultry and bees, they are learning the A, B, C principles of the most important calling of man, and all the details of modern, progressive farming, dairying, fruit growing, etc.

ing, fruit growing, etc.

The Grange grows, prospers, and helps the farmers of Rhode Island also. Thirty subordinate Granges are to be found in as many neighborhoods. Several have good halls and libraries, and others are being planned and built. Under the leadership of A. M. Belcher, of Arnold's Mills, who tills a good farm com of Arnold's Mills, who tills a good farm com-ing down through several generations from colonial times, and assisted by a good corps of officers, all working in harmony, the Grange in Rhode Island is helping her farmers and her other citizens not only on the farms and in their homes, but in the halls of

The farms and farmers of Rhode Island are up with the progress of the times, and are not behind many larger and perhaps more boast-ful agricultural States.—MORTIMER WHITE-

#### THE FARMER'S LIBRARY.

The Advantages of Taking One or More Agricultural Papers.

EDITOR AMERICAN FARMER: Probably ot one-tenth of the farmers throughout this great country take an agricultural paper. The other nine-tenths till the soil and grow crops just as their fathers did before them. ey follow in the same ruts and succeed in eking out a bare existence. To be sure, there are some exceptions, but in a majority of cases the above statement is true. I know of but ne or two cases where a farmer had a small farm, was badly in debt, took no farm paper, had to depend on his own efforts, and suc-

Recently I was told of such a case by a neighbor, but careful inquiry revealed the fact that the farmer in question took four agricultural papers, and THE AMERICAN FARMER was one of them. He is very suc essful, and making money from his little farm every year. He keeps all his papers on

them to be destroyed. He not only looks out for himself, but for the other members of his family also. He has three children, one of whom, a girl, reads in the fourth reader, and the Youth's Companion comes in her name every week. paper has a children's' page, and the young girl reads these stories to her little brothers They crowd around her and keep as still as nice, with their dear innocent faces full of By the way, THE AMERICAN FARMER is

one of the favorites among the older people in our family. It has large type, does not iniure the eyes, and is full of illustrations have only one suggestion to make: Would it not be better to have smaller pages and more leaves? Of course, it costs some money to take so many periodicals, but it pays big interperiodicals, and eight of these are farm papers I am well supplied, and so is each member of the family. I do not intend to drive my children away from the farm, nor force them to go away from home for amusement,

I had rather pay out \$15 or \$20 each year methods practiced men in our own neighborhoed do not believe in "book farmin"." They will not take any farm paper, and but one local newspaper. of the young people take some tisements. The boys hate the farm and leave

ome to get into the city.

The children grow up in ignorance, attend chool irregularly, graduate at 15, or earlier, because their parents want them at home to work. The father has worked hard all his life to barely live, and expects the children to do likewise. No books or papers are taken, and the boys go out nights to play cards with the neighbor's boys, or down to the village, where all sorts of vices are indulged in. One of these young men is serving a 10 year's sentence in our State prison. Another mur-dered his own sister, and suffered the penalty

If the parents of these boys had brought them up in the right way, set them a good example, made home what it should have been, taken some good farm paper, and prac-ticed the methods taught therein, would it have paid? Most certainly. Then, if plenty of good reading matter had been furnished them, think of the honored and useful po-sitions in life those boys might have occupied

to-day.

Boys don't leave the farm if the farm is made attractive to them. Quit your meanness, quit working in the old rut, make the old farm pay, and make the boys love it. Put more work on fewer acres. Follow the methods of the successful farmers who write for THE AMERICAN FARMER, and von will soon feel like a new man. This article is inended for that class of farmers who take no agricultural paper. And if each one of THE MERICAN FARMER'S subscribers will mark this article in his paper, and loan to some such neighboring farmer, much good misionary work may be done.

Too much cannot be said in favor of the

purity of THE AMERICAN FARMER as a amily paper. During my acquaintance with it I have never seen a single impure adver-tisement in its columns. It requires greater ourage on the part of the editors to reject the mmense number of such advertisements than re can imagine. They refuse thousands of dollars of such patronage every year. But their reward is sure. Farmers who wish a live, practical farm paper, and one that can have nothing but an elevating tendency on the morals of their children, hail such a paper

Another thing that is a disgrace to civili-zation is the multiplicity of cheap farm and

# Saved Her Sight

"My little girl Hazel two years ago had the oculist said the sight of one eye was destroyed and she might lose the other. She suffered in-tense pain. We began giving her HOOD'S SAR. SAPARILLA, and to our sarraise her eyes began to improve rapidly. The and she is now as well as

ever. Her eyes are permanently and perfectly cured." W. A. BUTTERFIELD, 1495 Hastings St.,

# Don't Steal It

YOU'VE LOST MANY A WHIP. YOU'VE HAD 'EM STOLEN ALMOST BEFORE YOUR EYES.

Gou've had to carry them with you to protect yourself from the whip pirates who so fully have taken possession of almost every locality.

Well, Rejoice and be Glad!

WE HAVE SOLVED THE PROBLEM BY OFFERING YOU. AT A PRICE WITHIN EASY REACH OF ALL, . . THE CELEBRATED.

CANE WHIP Price. \$1.69 Postpaid by Mail.

Most Wonderful and Useful Invention of the age. A Cane, a Buggy Whip and Riding Whip all in one.

TULL LENGTH 6 FEET.

CHEAPER THAN A WHALEBONE WHIP, TEN TIMES AS DURABLE AND CONVENIENT.

The prime object of the cane whip is to provide a whip that may be adjusted and used as a cane, thereby enabling one to possess a good whip without danger of being stolen. The des ability of such a provision is manifest to everyone using a whip.

while the remainder of the whip may be quite good. This failing is obviated in our cane whip from the fact that all our tips are interchangeable. Tips may be bought at a small cost and used on the cane section of any whip. Extra tips furnished at 35 cents each. Every other whip will sag or warp in use, even the best full

Further, as is known, every whip will wear out at the tip first,

The Patent Steel Cane Whip never sags or warps. This is evident from its construction. The cane section is composed of a flexible, elastic steel tube, spiral in form, of such manner that any degree of flexibility is obtained, both from the distance of edges of steel in spiral apart, and thickness of the steel of which it is made.

Price, \$1.60, Postpaid to any P.O. in the U.S.

Or The American Farmer One Year and the Whip - - - - \$2.09.

THE AMERICAN FARMER, Washington, D. C.

story papers, full of low stories and vile ad- the method of gathering wool in infected vertisements. Many farmers take such papers because they do not cost anything. But if they could only pierce the mists of coming years, and realize the untold evil and misery cholera prevails." heir penuriousness would eventually bring some of the younger members of their families, they would banish such trash from their homes, and teach their children to shun them as deadly poison.—J. H. Brown, Kala-mazoo County, Mich.

#### Good News for Asthmatics.

We observe that the Kola plant, found on the Congo river, West Africa, is now in reach of sufferers from Asthma. nounced, this new discovery is a positive cure for Asthma. You can make trial of the Kola Compound free, by addressing a postal card to the Kola Importing Co., 1164 Broadway, New York, who are sending out large tria cases free by mail, to sufferers.

# World's Fair Notes.

The Montana women sent a very beautiful exhibit of pressed flowers. It is under glass and fixed to a cylinder.

The Oregon exhibit of strawberries arrived
June 19, and looked wonderfully well after
tion of leaf tobacco. its journey of 2,400 miles.
Senor de Rojas, of Cuba, intends to send to Chicago a number of specimens of sugar cane grown upon his estate at Remedios. It is id that some of the canes are 30 feet long. Kentucky's pavilion in the Agricultural Building is decorated with tassels and fringes made of cigars. A portrait of Daniel Boone and the seal of the State are shown in to-

bacco leaves.

The State of Washington's model farm is about 30 feet square, the farmhouse being about the size of a bird cage. Fields of grain are realistically represented by sof millet stuck into the loose earth, thrushing machine is eight inches high.

The Congress of Forestry opened in the sembly Hall of the Agricultural Building June 19. In the absence of Chief Buchanan, Commissioner Blanchard, of Florida, was called to the chair, and Hon. Alfred B. King, Liberian Commissioner, delivered an address "The Forestry of West Africa." lectures by eminent foresters were given until June 30. Among those who delivered addresses were: Gifford Pinchot, Biltmore, N. C.: Robert Hudson, New South Wales; Prof. C. B. Waldron, Illinois; J. J. Grenbuton, World's Fair Commissioner from Ceylon; Prot. William Saunders, Canada; Dr. A. Ernst, Venezuela; Edmond S. Meany, Washington B. E. Fernow, United States Agricultural

# Lower Rates for Celery.

Last week the Interstate Commerce Com mission, in an opinion written by Commis-sioner Wheelock G. Veazey, decided adversely to the Wabash Railroad, in a complaint brought against it by the Tecumseh (Mich.) Celery Company that it classed celery too high, and exacted a disproportionate freight rate for carrying it from Tecumsch to Kansas The Commission found the complaint the railroad should class celery with caulithe railroad should class celery with cami-flower, asparagus, lettuce, green peas, string beans, oyster plant, egg plant, etc., rather than with peaches, grapes, etc., and should charge no higher rates than were imposed

# Abolished the Garden City Station.

Secretary Morton has discontinued the Ex-Secretary Morton has discontinued the Ex-perimental Station at Garden City, Kan. This was established to develop some forage grass that would flourish in the and district of western Kansas, and convert the "Great American Desert" into a grazing region. he Secretary has come to the conclu that the thing is a failure, and no results obtained commensurate with the expenditure. He believes that not only is it impossible to raise any of the common grasses there success fully, but that even alfalfa is a failure.

# Disinfection of Wool.

Assistant Secretary Hamlin will make no change in the existing regulations requiring the disinfection of wool from cholera districts. He was strongly impressed with the complaints made by some of the importers as to the damage which the wool suffered by disinfection and the absence of danger in importing it without treatment. He referred bject to Surg.-Gen. Wyman, who and Mr. Wyman reports that the disinfection is necessary, saying that "Reports received at this office have shown that by reason of

The charge that wool was singled out for this treatment in order to prevent its impor-tation is met by the fact that the same methods of disinfection are provided for feathers for bedding, human hair, hides, and skins. If the regulations had any purpose to reduce importations for protective pur-poses, they were framed by the Marine Hospital Service without any consultation with the customs officials, and the latter have been rather annoved than otherwise by the interferences of the Marine Hospital Service in the treatment of imported goods.

# Duties Refunded.

Assistant Secretary Hamlin has instructed the Collector of Customs at New York to re-fund the duties paid under the conditions involved in the suit of Blumlein & Co. against the United States, which recently has been

decided against the United States. The question raised in this suit was as to the proper construction of the Tariff Act of March 3, 1883, relating to the proper classificaable for wrappers the duty shall be 75 cents per pound, otherwise 35 cents per pound; but no unit for computing the percentage was named in the law. Collectors, under instruc-tions, fixed upon "the hand" as the mini-mum unit, whereas the court decides "the pale" to constitute the unit in question. All entries of tobacco, therefore, awaiting the determination of this question will be liquidated in accordance with the court's de-000 will have to be refunded to the im

# What Shall We Drink?

What Shall We Drink?
When the rays of old Sol are boiling down as a ninety degree rate, the air like the breath of a furuace and everything hot, dry and dusty, the natural desire of the average human is to drink. But what to drink? there's the question. The serious effect of an over indulgence in ice water is well known. The thousand and one cheap gassy beverages are known to be more os less injurious to the health, while the mineral waters of known purity and healthfulness are a luxury beyond the reach of but few. What shall we drink?

A beverage to meet the requirements must.

a luxury beyond the reach of but few. What shall we drink?

A beverage to meet the requirements must, first of all, be absolutely pure and non-alcoholia. It should possess a medicinal element to counteract the effects of the heat and keep the blood pure and the stomach healthful. In order to be palatable and refreshing, it should be sparkling and effervescent. Last, but not least, it must be economical and within the reach of all. A beverage that fully meets all of the above requirements and one that is entitled to more than passing mention is Hires' Rootbeer, manufactured by the Chas. E. Hires Co., of Philadelphia. This preparation has been analyzed by the highest authorities and pronounced by them to be free from any deleterious substance and absolutely non-alcoholic; while all physicians acknowledge its health giving qualities. It has a delicious, appetizing flavor, is full of suap, sparkle and effervescence, and is without a peer as a refreshment.

freshment.

A package, costing 25 cents at the grocer's or druggist's, will make five gallons of this great temperance drink? Truly it answers the question—What shall we drink. There are many substitutes and imitations of Hires' Rootbeer offered for sale which should be carefully avoided.

Opportunity for American Millers.

The Department of Agriculture is informed that the exhibit of milled products to be held at Mainz, Germany, in August next, is a matter that will be of great interest to millers in this country. The National Association of Bakers will meet there, of which association three-fourths of the bakers in Germany are members, and to which Holland, Switzerland, and Austria will send delegates An excellent opportunity will be offer exhibit American cereals, in view of the recent modification by Germany of the discriminating tariff imposed upon milled as compared with unmilled products, which was an almost effectual barrier to the introduction of American flour, etc.

# Much Sweetness.

The maple sugar laboratory at Montpeliet, Vt., has closed for the season. There have Vt., has closed for the season. been weighed for inspection 4,759,762 pounds, been weighed for one wounds have tested 90 deof which 85,002 pounds have tested 90 degrees and over; 4,043,880 pounds have tested between 80 and 90 degrees, and 630,880 between 80 and 90 degrees, and 500,680 pounds less than 80 degrees. The amount of bounty will, therefore, be in the vicinity of \$72,500. This covers the product of all the New England States. The Vermont bounty will be close to \$70,000.

# Alfalfa Notes.

Our alfalfa clover is looking splendid .-MRS. W. P. McMillan, De Cliff, Q.



The Girl I Loved at School.

When the mellow days of Autumn wrap the hills in purple haze
And the sun seems all the dearer for the shortness of the days,
Comes a lovely apparition through the mists of

And the lips, no, no! not ruby! for the coldness of the mine
Chills the jewel's burnished surface, though the
fiery rays may shine
In the glaring of the gaslight; fitter far do they with the glow in yonder chalice; the same fragrance lingers there,
The same thrill runs through me as when on the

organ steel organ stool
I got the first and only kiss of her I loved at

And the form it grows distincter as the misty vall grows thin.

And the silver belt that linked her, like the screent shutting in All that earth retained of heaven, hisses out "Thou jealous fool!"

For I parted in my anger from the girl I loved at school.

for I parted in my anger from the girl I loved at school,
And I know not if the fleeting of the purple Autumn days
Brings us nearer to the greeting at the meeting of our ways;
If it be I may not meet her till we've crossed the Stygian pool,
Yet I think that I shall greet her as the girl I loved at school.

—Sioux City Journal.

THE WORLD'S FAIR.

To one who 18 months ago saw Jackand there with building materials and debris, it seems that only the magic changed it.

Too much praise cannot be given to that, undanted by a phenomenally so successfully

Boards of Managers or the people of Chicago to make visitors as comfortable had been communing with the angels.

as possible. Upon arriving at the grounds you find in place of the jam you feared at the entrance that different gates have been arranged for passholders, ticketholders, those who enter on check, etc., and that turnstiles are built so that no amount of jostling will in any way help matters on. You simply pick out your gate, take your place at the end of the line, and walk in.

When you are well in you are struck with the stillness. You had expected it to resemble a circus on a huge scale, or a stock exchange, with the accompanying din and commotion. Nothing of the kind. You have left the trolley, the cable, and steam cars far behind you; the hack driver and the street fakir parted company with you at the gate. You are in a quiet para has bloseomed into a city of broad avenues, each side of which are magnificent white palaces. There is much green grass and many trees. Roses of all varieties are abloom. The pansy beds smile at you as familiarly as in your own side yard. In addition to the native beauties in the hundreds of acres of the inclosure, there are also the added attractions of expert landscape gardening. Like towering monoliths stand the giant cacti, and at their feet trail frail exotics. There are lagoons and rustic bridges; there are playing fountains; there are swans floating around them. Nothing has been omitted that could fascinate the eye.

All along the avenues are rustic benches, and at short intervals are public fountains of pure drinking water. In the kindly shade of the buildings are grouped family parties partaking of the contents of generous lunch baskets; the older ones with a dreamy look coming into the eyes, the younger ones each eager to tell the most wonderful tale of things seen.

Grandpa is there, and somehow it seems hard for him to realize that only 45 years ago he started out of Chicago with an ox team to settle on a Government claim only a hundred miles away.

Those who do not live near enough to take their luncheon with them, or who did not get a neatly packed box offered at the gate, can find a cafe in almost chapeaux take their place. every building. I went to the Philadelphia, a restaurant not far from the Horticultural Building, which is comalmost as open as a pavilion, and was becoming to the plainest of for their waiter; near sat a Turk in at- velvet roses and foliage.

tractive costume, smoking from a longstemmed pipe; at the next table sat some men, Americans, smoking cigarets, with the ladies sitting indulgently waitother years.

And I don't know why it is so that my eyes will swim with tears;

For I hate to judge emotions by the text-book's rote and rule.

And I only know I'm thinking of the girl I loved at school. ing. In a moment four Buffalo Bill the minister seemed to shrink farther Of the deepest, brownest velvet are the sweetly thoughtful eyes.

And the checks are like the roses that our grannies used to prize;

Not the pampered, pinky biossoms that the hothouse man deals out

At four dollars for a dozen and with pasteboard wrapped about.

But the dear old damask roses that would hold their tints till Yule—

Just the sort I used to gather for the girl I loved at school.

> nating picture. Near the Women's Building is one of the public comfort parlors. At its head tractive and homelike. Any woman can go free of charge and rest and freshen up a bit after a forenoon of sightseeing. umbrella, or rubbers.

sandwich. Altogether it was a fasci-

The children's building, finished in gilt and baby blue, is a surprise to many. In the center on the ground floor is an open court surrounded by a railing. Here are all of the needed appliances for small boys to teach them to turn on the pole, leap, or perform the other acro-What Can be Seen in the First Half batic feats so popular among our youthful citizens. Under the same roof are parlors where mothers may leave infants son Park, an undeveloped expanse of to the care of experienced nurses for 25 meadow and clumps of forest trees, and cents a day. The gentle, kindly ex-still more to one who six months since pression on the faces of these women besaw the ground torn up, heaped here speak good care for the little tourists left to their charge. This institution makes it possible for many women to see the touch of a fairy's wand could have so Fair in comfort that otherwise would be compelled to remain at home.

Not far from the Transportation Buildthose in charge of the vast undertaking ing is Music Hall, where each day at 12 o'clock a free concert is given by the hard Winter and frequent strikes of Thomas Orchestra. The building is workmen, they have brought it all out well ventilated, is cool, with a seating capacity of 5,000. It is finished in From the time you leave your train maple, and the light is soft and restful you are constantly impressed with the to tired eyes and head. One can spend idea that neither money nor thought a quiet half hour there after luncheon nor work has been spared by the listening to artistic rendering of masterpieces, and come away feeling as if one

# Fashion's Fancies.

Shirred hats are more popular than ever this Summer. They are made of the most dainty textures in all colors. Never before has the American woman been able to wear gloves in so exact

matches to gowns. A favorite way of bringing last year's jacket up to date seems to be to add a

velvet shoulder cape to it. The new mutton-leg sleeve is larger, wider, and fuller than ever below the shoulder. It is not only plaited at the arm size, but also at the elbow on the outside and inside of the arm to give it new additional volume. It is used on all sorts of fabrics, from ginghams to Lyons brocade, and for gowns of every description, from practical utility dresses to toilets designed for the most elaborate occasions.

Black and white, in all combinations, will be in style for the coming season. A cool wash hat for a little girl is made of gathered frills of chambray with a cluster of daisies where it turns



The most daring combinations are seen on all the Summer gowns, and though in many cases a sad clashing is the result, if a little thought is given to their conception some very chic and artistic effects may be obtained at small

Early Summer days produce a more refined element in dressmaking and hat building, for, with the suggestion of roses in the air, the heavier forms vanish, and filmy fabrics and blossom-laden

A recent exhibition of purely Summer millinery showed some lovely hats that were all that the feminine heart could modious, well lighted and aired. It is desire, and which would certainly prove attractive to a solitary spectator, as the daughters. A charming creation was of occupants formed so representative a coral pink rice straw, with an open gathering. There were six Germans, crown and brim of yellow Vandyke FIGARO JACKET.

Cream Irish-point embroidery is used to make this jacket. Take the lace of the depth of the jacket, with the scallops along the straight lower edge, and cut it on the double—that is without a seam at the middle. Join it, and gather it to fit at the armhole, especially at the



A frill seven-eighths of a yard long of ace four inches wide is set around the armhole, headed by a ribbon with a bow on the shoulder. The neck is furnished with a standing collar.

CHILDREN'S CORNER.

#### A Funny Old Man that Will Make Papa Laugh.

The materials required are a wish bone, red sealing wax, some coarse black thread, black ink, an old pair of kid gloves, and sewing silk that will go well with the gloves. When these materials are collected, the first thing to be-done is to cut about 25 pieces of black thread, one inch long, and tie them firmly together in the middle.



(Fig. 2.) This will constitute the wig of our little subject. Then go to work on the wish-bone itself. Heat the sealing wax over the gas or a candle until soft, apply several times to the head of the wish-bone until it is sufficiently covered; then shape with the fingers, making the general form of a face, with a somewhat prominent nose. (Fig. 1.) While the wax is still soft, press the black thread into it, spreading out the threads on each side. Another dab of wax on the very top of the head will

Form the feet by applying wax to both extremeties of the bone, and shaping it to resemble feet. (Fig. 1.) Now for the dress. Cut two oblong pieces of kid from the gloves, one the length of the bone, the other a little shorter. Nick both pieces at the bottom; feather-stitch the ends of the longer piece together so as to form a pair of wide trousers (Fig. 4); slip on the wishbone, gather at the neck, and sew firmly. The other piece may be prettily stitched around the bottom (Fig. 3) and shirred at the neck. This will give the effect

of a wide cape. An addition to the little figure can be made by cutting off half the small finger of a glove, ornamenting it with the silk, and fitting it to the head, to appear like some oriental head dress. (Fig. 5.)

This trifling and inexpensive little

gift is most amusing, and certainly cannot fail to win the appreciation of the person who receives it, by its oddity and its novelty.

# A Hammock for Baby.

There is no better place for baby to take his nap than in a hammock, as he is not able to fall out very easily. It allows of a free circulation of air, and there is less danger of prickly heat than if he were put in a crib or on a bed. When the Summer is hot and he won't sleep as long as he ought, swing the hammock in the yard, clothe him with plenty of woolen next to his skin, and you will find that the drone of bumble bee and the song of the reaper will cause master baby to prolong his siesta till the worn mother has had time to take a nap herself. There is something peculiarly soothing about the open air that will make it evident very soon that the hammock is a good investment. If you do not-know how to knit one, rip up some wheat bags and make one from them. Put a stick in one end and work islets in the other for ties to be lopped through. You will now be able to bring the two sides together over the young occupant, and then by using a sciver, such as the who included in their order of beer one lace. The sole trimming consisted of for their waiter; near sat a Turk in atvelvet roses and foliage.

ing, and thus all danger from accident is there. In addition, then, to the little averted. A double fold of mosquito plain home accomplishments which every netting completes the outfit. Try it.

#### WOMEN'S WISDOM.

TO EVERY WOMAN, For the present, we have this broad offer to make to all readers of The Farmhouse Department: We will give a full year's subscription to THE AMERICAN FARMER to each friend who will send one-half column of available matter withigh that year. Subscription may be a new one, or it may be an extension of one aiready in our books. 111 CONDITIONS—But note this: We shall apply at least three tests to every stricle, viz.: Is it brief? Is it fresh and brightly the is really interesting to women! Let intending contributors apply these tests before sending their matter. In range of topic these may cover everything of special interest to women. Indifferent, prosy, or state matter is not women. Multiferent, prosy, or state matter is not womed. We want to hear from our cleverest women, with facts, fancies, and experiences all their own; about their housework, fancy work, or the training and education of their boys and girls.

The contribution may be upon one subject or composed of short paragraphs on a variety of topics. All MS must be written on one side of the paper only. All communications for this department, care of THE AMERICAN FARMER, Washington, D. O.

#### It Helps Us.

EDITOR FARMHOUSE: THE AMERICAN table a few days since, and on opening I turned, as I always do, whatever paper I take, up to the household department first. Among other good things, I read the offer from the Editor, "To anyone who would write a half FARMER came with other mail matter to our Editor, "To anyone who would write a half column or more for the Farmhouse."

column or more for the Farmhouse."

At the earliest possible moment we, pen and I, got everything in readiness and thought to commence. But just as pen's nose went into the ink bottle the three "tests" rose up, like ghosts of all the threats that the word implies, frightening pen into the ague and me stock still. After recovering somewhat I said, "guess we'll let the job out." Just then courage came along and whispered go ahead; what if you do fail; many others have; there will be plenty of company in the ahead; what if you do fail; many others have; there will be plenty of company in the basket. So I cleaned pen's nose, coddled it out of the shakes and proceeded to business. The first idea was to wonder how many of the thousands of readers of THE AMERICAN FARMER turn invariably first to the Farm-house columns, and to how many housekeepers have they given bloom convergence below. have they given cheer, encouragement, help, and a spirit of emulation? Could the editors know half the blessings they have carried into the homes that need them, they would feel that they had not labored in vain.

When I look back over the years to the

time when such a thing as a department for women and the household in a paper was un-known, I can realize a wonderful change in woman's condition for the better, especially in the country homes. To a wide-awake-ever-on-the-alert housekeeper, there are inestimable benefits lurking in those pages. Let the number grow into legion of those who are willing to impart as well as receive.

Then everybody will get some hint or recipe or bit of experience from somebody that will meet just their needs.

RUGS. To the correspondent who asked about ru making, and who wishes to make "good substantial rugs with the least outlay of time,"
I will tell how an industrious old lady of my acquaintance makes them. She cuts her rags as if for a carpet, sewing them either hit and as it for a carpet, sewing them either int and miss or the colors separately; then hooks or chrochets them with, a strpng, wooden hook made by one of the boys, making them round, square, or tray shaped, and with the bright colors they are handsome and very durable. Those made with mostly cotton rags she lines with some heavy material, tacking at intervals to keep them together when shaken, sometimes tufting them with white cotton or colored yarns. One ring that she made entirely threads on each side. 'Another dab of wax on the very top of the head will give the appearance of a bald pate with just a rim of hair around it. Cut off the ends of the hair evenly; with a pin, prick two small holes for the eyes, make a slight indentation for the mouth, and fill these with ink. The head will then be completed, and, when dry, we can go on with the work.

# A Voice from Illinois.

EDITOR FARMHOUSE: Here is a nice, healthy drink for sick or well. Take one egg, beat it well; pour into a glass tumbler and fill with cold, sweet milk, and sweeten to taste. Beat the white of an egg and sugar and place on top of milk. Some kind of flavoring can be added if liked.

Maybe some of the ladies would like to earn some money this Summer at home. This is the way I made about \$30 last Summer. got jelly glasses and filled them with apple jelly made by the following recipe: Cut the got jelly glasses and filled them with apple jelly made by the following recipe: Cut the apples up, peeling and all, even the core will not hurt anything if not rotten. Put in porcelain kettle and cook till quite done. I put in just enough water to cover them. Then strain through a cloth-common flour sacks washed out are the best. I used granulated sugar and my jelly was so clear you could nearly see through it. Proportions: Four cups of sugar to eight of apple juice. Boil till it will drip from spoon. I sold my jelly by the dozen glasses to my groceryman, who retailed it out. Wine sap apples are the best, but any good cooking apples will answer the

purpose,

Here is a recipe for a nice roll cake: Two eggs, one teacup of sugar, one and one-fourth of flour, four tablespoons of cream, two teaor hour, four tablespoons of cream, two teaspoons of baking powder. Leave the one-fourth cup of flour to stir the baking powder in. Stir in the baking powder and flour last. Bake in long, narrow bread pan, and while hot take out and spread with jelly and roll. I will now tell you about an odd vase I saw the other day. It was home-made and very pretty. Take a small jar holding about a quart—a stone jar—cover it all over with putty. Have ready all kinds of little trinkets. Stick them all over it close together. The one I saw had everything from a pin to a shoe buckle. When filled with flowers it was a beauty. If these do not find the waste basket I will send more shortly.—Mrs. CLARA HARLOW BENNETT, Charleston, Ill.

# An End in View.

It is impossible for a well man or woman to be even moderately happy without an object ahead. There is no greater wrong that a parent can commit than to bring up a child in indolence. Hardly one is born whose observant parent may not detect a special trait to e strongly inherent. It does not follow that this is to be the child's life work, as so many are apt to think; but it does indicate along which lines the child may be most easily led to habits of industry. How many mothers there are, and especially those who have borne the heaviest burdens, who think they are this or that. Never was there a more vicious idea inculcated. Not until she has mastered every detail of h is she fit to take upon her the responsibility of any man's home. Let her learn it gradually, profiting always by experience and experiment of those older than herself. You may think that only matrimony is regarded as her future

state. You are wrong.

No woman has any right to marry for the sake of a home or to get someone to support her. She ought to-day to be absolutely self supporting if circumto leave her home or if she is not needed

country girl may have at the age of 16 for no expense, she must also have some other one thing in which she may excel. In this her natural taste and aptitude should be considered; some girls may spend a lifetime at the piano and yet ever succeed as a music teacher.

Let her take a normal course, or a similar preparation in a kindergarten training school. Better still, and this is a position that time will see filled by them stand a few minutes, then bake in country girls entirely, a course in manual training; nature has given them a constitution, and habits a set of nerves that will fortify them for this life. If not any of these, then dressmaking may be perfected at the nearest modiste or millinery at the County seat.

Why not study into the science of beekeeping? Why not get up a reputation for poultry raising and be able to ask and get 75 cents apiece for squabs a tablespoon of bread crumbs; season or \$2 a dozen for hen's eggs? Then there is horticulture and floriculture, at which women almost always succeed. All on this latter list are considered very healthful employments for women, and especially to country-bred girls, as they call for exercise, and outdoor exercise to which they from childhood have been accustomed. At any rate, do something, if it is nothing but sewing for the poor. Not so much what it may do for them, perhaps, but for a purely selfish motive what it will do for you.

#### Home Table.

SOME WAYS OF PREPARING VEAL The cook's greatest use of veal is not build the main part of a meal upon, but rather as a foundation for many dainty small dishes.

It is a necessity to the first-class cook in making stocks, both white and brown, for sources of all kinds. The poorest parts of veal may be utilized in some delicate dish. The brains, the liver, the sweetbreads, and even the tendons of veal are esteemed delicacies. The meat of the leg, which in full-grown beef is the comparatively tough round, is the fillet of veal—one of the daintiest parts.

In the last score of years we have learned the value of sweetbreads in this country, and they are no longer thrown away as they once were. But there are many other small pieces of veal which make very appetizing dishes (if properly prepared) at a very small price, and their merits are yet comparatively unknown to the average housekeeper. Of these the breast of veal is perhaps the best known, yet it is very little used. Every part of it, except the fat and hard bones, may be made into appetizing food. For breakfast, the breast may be boned, trimmed free from fat, and cut in small squares of about two inches. These squares should be simmered in stock slowly until they are so thoroughly tender that they may be easily pierced in all parts with a larding needle. They should then be pressed and should re- ful of butter, and the grated rind of a main in press for eight or 10 hours, so that it is necessary to make the stew the day before it is to be served. In the morning skim off any grease which may little custard cups, or in a large puddinghave risen to the top of the stew. Take the pieces out of press and heat up the liquid in the saucepan. Thicken it with a teaspoonful each of flour and butter to do this successfully, the jelly must be mixed, taste it to see that it is well sea- melted in a little water and spread over soned, and let it simmer again for 10 the pudding when the latter has cooled minutes. Replace the veal in it and let a little. Now make a meringue of the it warm up. When thoroughly heated dish the pieces in a circle and pour the gravy over them.

If you wish a very ornamental dish. place a mound of green peas or a mound of well-browned potatoes in the center of the platter and arrange the pieces of veal around it. These "tendons" are perfectly tender if properly stewed and pressed the day before. They are gelatinous and melting, full of succulence and flavor. They are very nice dipped in egg and fine bread crumbs and fried and served with tomato sauce.

Calves' liver may be made so very delicate a dish that it is a great mistake to cook it in a coarse way. When it is fried in bacon fat, as it ordinarily is it simply absorbs the rankest part of the bacon and becomes grease-sodden. Calves' liver, served with bacon, should always be broiled. Select a fresh, fine calf's liver, one that weighs about a pound and a half. Let the butcher cut mace, one of cloves, a tablespoonful of it in rather thin slices. Throw it in cinnamon and a grated nutmeg. Bake cold water for 15 minutes to whiten it. drain it, and wipe it dry with a cloth. Season it with salt and pepper, and rub it with oil on both sides. Put it in on a gridiron and broil it for six minutes on each side. Serve it with six or eight thin slices of bacon, fried for about two minutes, till they are crisp and brown.

Calves' brains may be very easily prepared for the breakfast table. They should be blanched the day before For a family of six, procure the brains of two calves. Put them in ice-cold water for about an hour. Then remove the thin skin which covers them. They should be very clean and white, without any bloody veins. Wash them in cold water and drain them, taking care not to bruise them. . If they seem in danger of falling to pieces, tie a piece of muslin around them; but this should not be necessary. Then put them in a saucepan and cover them again with clear, cold water. To a quart of water add a teaspoonful of salt, a half cup of into cold water. When they are cold cut each brain into two or three pieces and roll them gently in yolk of egg and then in fine breadcrumbs, and fry them in hot fat. Serve them with tartare sauce. This is simply a Mayonnaise sauce, to which a teaspoonful of dry mustard and two small cucumber pickles are added to every yolk of egg press down sufficiently to admit of used.

HOT CROSS BUNS.

One and three-quarter pounds of flour, four ounces of sugar, four ounces and serve.—SARAH GODING.

butter, two eggs, six ounces currants, one-eighth ounce caraway seeds, onequarter ounce mixed spice, essence of yeast, seven-eighths pint of milk, one ounce lemon. Dissolve the yeast in water, which must be a little warm, stir in a little flour, then stand before the fire to rise; mix in all the ingredients except the sugar, which is added last; let it stand a short time; mix in the sugar, put it into shapes, put them on a tin, cross them, wash over with egg; let

a quick oven for 10 minutes. OMELET.

Chop one raw onion very fine and put it in a saucepan with an ounce of butter. Take one ounce of small squares of salt pork, cook them slightly, adding an ounce of scraps of finely-minced. cooked roast beef, the same of ham, and a pinch of chopped parsley; stir in a tablespoon of stewed tomato, strained, with a pinch of pepper and a third of a pinch of salt. Make a plain omelet of 12 eggs, the whites beaten very stiff, separately from the yolks, salt to taste, and a tablespoon of milk added gradually. Place eggs on a hot spider scantily greased with butter, fold up one edge, fill it with preparation, fold over other side, and serve.

BREAD CRUMBS.

Never allow yourself to think or allow your servant to think that you can afford to waste a crumb of good bread or anything-else. Cold bits if daintily saved may be made into the most tempting dishes. To the French must be given the credit of teaching the rest of the world the art of making over dishes.

As soon as the semi-weekly baking is over and the new supply of bread has cooled, every scrap of the old bread should be removed from the bread box, the box wiped out, and once a month scalded out and thoroughly dried before the new bread is put in it. The large pieces may be cut into diamond or heart shaped pieces to be used in decorating stewed chicken and other dishes. All of the pieces, large and small, must be roasted till every bit of moisture is gone. Some housewives keep these bits in a cheese cloth bag so that the air can pass to them freely. While the large pieces, as half a loaf, are most profitably used in dressing or for toast, the crust is usually pared off and is put with the crumbs. These are invaluable to the cook, as aside from the puddings and cakes they help to make, they are especially needed to bread chops, fish, and croquets.

If you would know how delicious bread pudding may be, take a cup of these bread crumbs, pour a quart of boiling milk over them and let them stand for two hours, until the crumbs have become thoroughly soaked out in the milk. Pass the milk and bread crumbs through a colander, then add the yolks of four eggs, well beaten, a scant cup of sugar, a heaping tablespoonlemon, using only the thin, yellow skin on the outside. Beat all the ingredients well together and bake the pudding in whites of the four eggs, beaten to a stiff froth, with a scant cup of powdered sugar and the juice of a lemon. Heap the meringue over the pudding, covering it with irregular hillocks. Put it in a slow oven, where it will become slightly browned in 20 minutes. Serve it when cold with a sauce of sweetened cream.

If you wish a hot bread pudding, take IN ALL TEXTURES AND PRICES. half pound of these dried bread crumbs, pour about a quart of scalding hot milk over them, and let them swell for two or three hours. When they are cold, add quarter of a pound of beef marrow, chopped fine, or if this is not convenient, a quarter of a pound of the best kidney suet, also chopped fine. Add six eggs, well beaten but not separated, half a pound of raisins, stoned, half a pound of currants, half a pound of sugar, and three ounces of citron, cut in shreds. Beat all these ingredients well together and mix in a cup a tablespoonful of the pudding for two hours in a slow oven and serve it hot with a rich sauce made of butter and sugar creamed and seasoned with lemon or nutmeg.

CHARTREUSE OF FOWL. This dish takes its name from the French monastery, where it is supposed first to have been eaten. Take two small fowls, squabs, goslins, partridges, or broilers, and after singeing, drawing, and washing thoroughly inside and out, dredge slightly with salt, rub butter over the breast, and put in a quick oven to roast for 10 minutes.

Have ready a young cabbage which has been plunged into scalding water and allowed to boil for five minutes. Cut this into quarters and take out the center and fold the leaves around the birds. Pour into the dish in which you have placed them the broth from the dripping pan in which they were roasted a pint of beef stock, add a carrot, an onion, three liberal slices of salt pork, with salt and pepper to taste. Let them cook in the oven one hour in a covered dish.

To make the chartreuse, take a smooth dish, a tin pail will do; butter the bottom and sides and cover the bottom with slices of turnips which have been cooked separately and some of the pieces of carrot that have been cooked with the birds. Put over these a layer of the cooked cabbage and a layer of the boned fowl, and so on alternate layers of cabbage and fowl till the mold is full. Place the pork on top, then another layer of cabbage. Place in a moderate oven with the door open for 20 minutes and then turn from mold

## THE HOUSEWIFE'S DEPARTMENT.

We offer below a large assortment of useful articles for the special benefit of our lady readers. In the preparation of this list whad in view particularly the wants of the women. In making up the assortment who have expended a great deal of time and pains in the examination of the largest stocks of goods in the New York market. We have thus been able to secure many things not to be found at all in our country stores, and in all cases we have aimed to save our patrons at least 40 per cent. upon retail prices for the same class of goods.

Everything here offered will be found to be of the very best quality and of he greatest value for the respective prices given. It will be noticed that we have given the price and pointage separate in the case of everything sent by mail. In those cases where postage is not named, articles will be sent by express to the nearest express office, except where it is stated "postpaid."

LADIES' BLAZER SUIT.

Just the Thing for Travel-



WAISTS FOR BLAZER OR ETON SUITS.



No. 1050-In fine polka dot sateen, double plaited

ruffle down the front, in light and navy blue... \$1.59
No. 830—Finest colored lawn, finished with shirred
ruffle around the neck and down the front, light blue,
plak, and navy blue... \$1.
No. 6-Silk waist, neatly-finished ruffle down the
front, bishop sleeves. This is made in changeable
silk, in siate, electric blue, golden brown, navy blue,
and red... \$3.90
No. 1633—Striped cambric, double plaited ruffle
down the frent and narrow plaited ruffle around collar and cuffs; white, with grayish-blue stripe... \$2.50
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and front... \$50
No. 1047—Of the best percale, double box plaited
down the back and front, in varieties of colors... \$50
No. 1553—Japanese silk, lined with percaline, trans-

THE ETON JACKET SUIT





AMATEUR DUCK RAISING.

How the Ducklings Should be Fattened and Prepared for Market. VII.

The first day I do not give any water; the second day, and from that time, water is furnished them in galvanized iron tanks that, inverted in tin plates, allows them the water they need and no more. Some such contrivance is absolutely necessary, for with an open drinking vessel they will get completely drenched, slop the water all over the ien, and besmear themselves with filth. After the third day I feed three parts meal, by bulk, to one part bran, thoroughly sealded. At the fifth day I begin their regular feed of two parts Indian meal to one part bran. From the second day they have had chopped cabbage, chopped green rye or grass at every feed. On the sixth day I begin to feed a teacupful of beef scrape that have been well scalded and soaked for 24 hours. I gradually increase the proportion of scrape until at the 10th day am feeding 10 or 12 per cent. Boiled vegetables can now be used at discretien, but I usually mix them with an equal amount of meal and bran, equal

Every third day after the eighth I add one-half pint of bone meal to every pail of feed in the morning. When 10 days old, if mild weather, or 14 days, if cold, you can safely drive them into division io. 2. And now comes their great advantage over chicks. Two hundred ducklings can safely be left alone without artificial heat, for they never kill each other by "huddling." They have a tendency at this age to plaster their heads and necks with feed, often filling their eyes in so much that these organs become very sore. I remedy this by allowing them on very mild days to have a shallow pan of water, about one inch in depth. In this they will bathe with beneficial results, but must never be left at the time, or some may be drenched and chilled. If the weather is cold do not try the bath, but wash the affected eyes with a damp rag, and then moisten with sweet oil. From the third day to the 35th ducklings should be fed once in two hours. From the 35th to the 45th, once in three hours. The remaining time to the 65th day, three times a day You must be very punctual and very regular. You should not, if possible, vary a minute from the regular time, for gormandizers as they are, it takes but little to unsettle their appetites, and this point must be strictly heeded. Never allow a particle of food to remain before them after they have finished eating.

Often ducklings in their eagerness for food, when first given them, will trample with their broad feet and "spat" the dough into a hard, level mass. When this occurs, owing to the peculiar formation of their bills they cannot obtain any more feed, and will walk away apparently satisfied; but if you will take a stick and immediately scrape the boards giving the dough a rough, uneven appearance, the ducklings will again " fall to." Continue this as long as you see that it is necessary, and even after that I have found that they will continue to feed from your hand or a paddle long after they have refused that which is on the boards. Here, then, is a great secret in feeding ducklings. As long as their appetites is good, ravenous in fact, you may assure yourself that all is going well; but the very instant their appetite fail, then look out. Consider you can put two or three pounds on a duckling in twice as many days. Consider again that he can as readily lose that number of pounds if not rightly tended.

As your price in the market depends wholly upon the size and fatness of your ducklings, it is a matter of some moment to you if out of 70 days required for his growth there have been several in which he has had no appetite. About feathering time your ducklings will evince a decided uneasiness as night approaches. The least unusual thing will put the whole flock in a panic, and they will often "row" around all night. Always light and hang up a lantern before dark, or you will frighten the "wits" out of the birds. The 40th day begin to increase the amount of meal and decrease the amount of bran until by the 50th day you should be feeding clear meal, with 15 per cent. beef scraps, and every third day one-half pint of bone meal to every pail of feed, with green food but once a day.

A chicken's flesh should be yellow;

a duckling's, on the contrary, should be white meated. For that reason it must not have green food but once a day when fattening. Your ducklings have now been for some time, of course, in division three. About the 60th day it becomes necessary that the largest ones shall "quack their last quack," so that the flock may all be in the market before they are nine and a half weeks old; for then the pin feathers will start, they will grow poor and be unfit to eat. Select the best looking birds, disturbing the flock as little as possible, always matter. Do not hang the bird up, but EDITOR AMERICAN FARMER.

seat yourself, holding it between your knees, with the left elbow on its back and the thumb and forefinger grasping lower mandible, the ends of each being inserted just enough to hold the bill open. Advance a sharp-pointed knife down the throat until just a trifle back of and under the eyes. Make a quick, sweeping cut across. If this is properly done, the bird will not even wince. Now grasp the upper mandible with the right hand, legs with the left; lower the head and allow it to bleed "well out." Be sure that it has done this, or blood will follow the feathers and the carcass

will be worthless. When the blood stops flowing strike smart blow on the head with a "billy." If there is no expert near you, you must do your own picking. An expert will pick over 100 ducks in a day. You, probably, will have to be satisfied if you pick less. Save the body feathers and down; spread them in an airy room, leaving them there for a number of weeks, and occasionally turning them like hay. I pick off a good share of the body feathers first, then remove the rest and the down by holding the skin tight with the forefinger and thumb spread apart with one hand, while with the other I roll the thumb over the end of the forefinger with a quick, snapping motion, allowing it to slide up the finger at the same time. Pick half way up the neck and leave feathers on the tips of the wings. Tie a piece of twine around the bird, confining the wings smoothly against body, then throw it into a tub of ice water to cool off and

harden up for market. The season of the year is not the only thing that governs the price of poultry in the market. You must build yourself a first-class reputation as a shipper. You cannot afford to do otherwise, if you intend continuing in business. When such a reputation has become firmly established there will be a call for your products. One man who has been successful says: "Some will say that everybody is going into poultry, but don't be afraid of that. There is always plenty of room at the top for all of us. What you should strive to do is to raise a better quality of goods than your competitors, and then you will have more. Work up a reputation for yourself, for always have the best, and your customers will come to you instead f your seeking a market for your Poultry should always be sorted and properly graded, each quality by itself. A few pairs of fowls out of condition mixed with choice, dressed poultry will invariably have its effect

[The End.]

Poultry Briefs.

on the better birds.

The Guinea fowl is of inestimable value to the poultry keeper who has trouble from the intrusion of hawks about his premises. A Guinea will drive the largest hawk away, even attacking it with no thought of harm, and their peculiar chattering when danger of any kind approaches foils all attempts of thieving birds, animals, or human beings.

I'ry them. The climate of middle Tennessee where I am now located, affords a grand opportunity for poultry keeping, because he Winters are so very mild, six weeks being the limit, and zero weather when it does come lasts but a few hours, or a day at the farthest. Eggs and poultry can be produced all Winter long, when prices in our Northern markets are at high-water mark. There are many good opportunities to make poultry raising profitable here to an enterprising

Eggs have this month sold down to seven cents in this Southern market: these, however, the farmer disposed of to a dealer, the retail price being 10 cents. There are opportunities of making handsome profits in buying up eggs and placing them in cold storage for higher prices. Thousands of dozens go North each week from this State to the packing houses in Cincinnati and Chicago, where by skilful packing they keep until prices advance and good returns on the original investment is obtained. There are handsome profits in this branch of the egg

The fright a hen will display when a snake shows itself is really amusing. She tries to attack it, timidly, making such a fuss about it that it frightens the snake about as much as anyone, and it gets out of the way as quickly as it can, seldom if ever attacking its frightened victim, although at one swallow some of the young chicks may dis appear, making a meal for the hideous reptile. Snakes like eggs also, and will suck them at every opportunity.-C., Murfreesboro, Tenn.

# To Break Sitting Hens.

EDITOR AMERICAN FARMER: Seeing so many questions asked and answered in your valuable paper, I take the liberty of asking what is the best, easiest, and surest way of breaking hens from sitting?—EDWARD MAY-ERS, San Antonio, Tex.

It seems to us that everyone has a by the leg or wing. If they are too from sitting, but the one which has had the a rolly-poly," lumps just between and back of the legs, the bird is fat and back of the legs, the bird is fat and back of the legs, the bird is fat and back of the legs, the bird is fat and back of the legs, the bird is fat and back of the legs, the bird is fat and bees results is the confining of the broody by the farmers is destroying the corn company. In a few days the hen will before you will be an expert in this have given up her broody inclinations. before you will be an expert in this have given up her broody inclinations .-

SUMMER POULTRY POINTS.

Trixie Tells How the Fowls Should be Treated in Warm Weather.

in Summer as given in Winter will al-

ways result in loss.

We should feed corn and corn meal abundantly in cold weather. It is healing, has a tendency to heat up the blood; hence its appropriateness as a Winter food. In warm weather the blood is already too hot, and we must so feed as to keep the temperature of our fowls' bodies as low as possible; therefore, corn should be fed very sparingly in the Summer.

Ground oats and wheat bran should onstitute our main warm weather ration. If mixed with milk so much the better, but be sure and mix it up dry enough to crumble readily between the thumb and finger. Soft and sloppy food should never be given fowls at any age, and it is specially injurious when fed to young chicks.

Give them plenty of fresh water for drink, and don't neglect to keep the drinking vessels clean and sweet. Sour drinking vessels and impure drinking water are the cause of nine-tenths of the diseases of the poultry yard. If you have any milk give your fowls some daily; any kind, be it sweet, sour, clab-ber, or buttermilk. It is valuable for poultry, especially the young chicks and

aying hens. Shade is as essential in Midsummer as is warm house in Midwinter. Plant morning glory, squash, gourd or grapevines apon one side of your yards, and train them so as to form an arbor. It will be highly appreciated by your fowls. Or you may make a shed by laying a few poles across your yard and covering them with weeds and grass.

Trees in the yards are a great benefit by furnishing shade, and there is no reason why the poultryman should not secure a good crop of fruit upon the

by furnishing shade, and there is no reason why the poultryman should not be governed to the pound of the pou

it with some good insecticide (I prefer the carbolic insect powder), catch each and dust them completely, turning the feathers back with the hand, so as to be sure of getting some of the powder upon each feather. Remove the fowls after thus dusting to new quarters, not infested with lice, and gather up all the litter upon the floor and burn it up, then close the house up tight, get an iron pot, place it in the house, build a fire in the pot, pour three or four pounds of sulphur upon this fire, beat a hasty retreat, closing the door after you. Leave the house closed up 24 hours. Open, air, and give the entire inside a good coat of whitewash, forcing the whitewash into every crack and crevice. Burn all the old nests, saturate the nest boxes outside and in with kerosene oil and make new nests. If you can get some tobacco stems build your nests upon them. If these are not available, then mix a quantity of sulphur or insect powder through the straw of which the nest is made. Remove the roosts and swab them with kerosene. getting as much upon them as possible. then touch a lighted match to them. The kerosene will kill the lice, and by burning it off you do not run the risk of the kerosene making the feet of your fowls sore, as it frequently does when iberally used upon the roosts.

Sprinkle the floor with diluted carbolic acid, remove the droppings often, and sprinkle the carbolic acid under the roosts after removing them. Before returning the fowls examine each one closely, and if you discover a single louse that has escaped death dust each one again with the insect powder. If you have done your work well you are now rid of the pests, and all that now remains for you to do is to use whitewash liberally every week or two and proceed as often as you did in the first place with the roosts. All this takes a good deal of labor, but it is the surest way I've ever yet found to exterminate these pests, and while our fowls are in-fested with them they will neither lay eggs nor gain flesh. Watch the sitters closely; lice often causes them to leave their nests and ruin a valuable clutch of

Can We Grow Our Own Sugar. The people of the United States con-

sume at least a million and a-half tons of sugar every year. At present not more than 10 per ence of that amount try needs special management in warm weather as well as in cold; the same care in Sympton cold; the same care cane sugar. Germany: produces 1,200-000 tons of beet sugar, and other European countries as much more. The total sugar product of the world is a little over six million tons. The world's consumption of sugar is rapidly outrunning the production. In three years it has increased 1.083,000 tons, an average of 361,000 tons per year. Last year the consumption was 6,289,000 tons, and if this year shows the usual increase the onsumption will be 6,650,000 tons. Careful statisticians, however, have estimated this year's probable crop at only 6,160,000 tons, of which 3,400,000 tons are produced from beets and 2,760,000 tons from cane. It is evident, therefore, that unless there is soon a large increase in sugar production the demand will largely exceed the supply. The production of sugar from beets

was first begun in France in 1811, under the auspices and direction of Napoleon Bonaparte. It is only within the last 30 years, however, that beets have rivaled and finally surpassed cane as sugar producers. At present continental Europe not only grows its own sugar, but also exports largely, principally to the United States, which is, both absolutely and in proportion to population, by far the greatest sugar consuming country in the world. If Europe can produce her own sugar, why cannot the Unit of States do the same thing? It has been found by experiment that the beets in Germany produce from 8 to 10 per cent. of saccharine matter, and at the latter figure their cultivation is exceedingly profit-

It has been demonstrated that in the vast dry upland plains of our Western country, where the sun is almost always shining, and where the amount of moist-

were nearly a dozen children, and all of them had their eyelashes more or less eaten off by cockroaches, a large brown species, which is one of the commonest throughout Brazil. The lashes were bitten off irregularly, in some places quite close to the lids. Like most Brazilians, these children had very long, black eyelashes, and their appearance, thus defaced, was odd enough. The trouble was confined to young people, I suppose, because they are heavy sleepers and do not disturb the insects at work. My wife and I sometimes brushed roaches from our faces at night, but thought nothing more of the matter. The roaches also bite off sleeping per-The roaches also bite off sleeping persons' toe nails. The Brazilians encourage large spiders to live in their dwellings, because they tend to drive away the roaches."

A New Cure for Diphtheria. The French physicians are having onderful success in treating diphtheria with petroleum. They swab the throat with it. The treatment presents little difficulty or danger. The swabbing is done every hour or two hours, according to the thickness of the membranes, which become, as it were, diluted under the action of the petroleum. The brush, after being dipped in the petroleum, should be shaken to prevent any drops falling into the respiratory channels. The patients experience relief from the very first application. The disagreeable taste of the petroleum remains for a few moments only.



#### THE MARKETS.

Review of the Fortnight.

THE TONK OF THE WOOL MARKET. Justice. Bateman & Co. 's circular says: Woo is dull; prices are weak, and in buyers' favor Manufacturers are buying only for immediate wants. The recent decline has quick ened the demand to some extent Although quotations are not materially changed the average is a shade lower than last week. The accumulation of supplies in Eastern cities is checked by the fact that commission houses can only make advances on the bases of the probable value of wool in case duties are reprobable value of wool in case duties are removed, so that eash advances, freight, and charges will not exceed the probable price of wool in case the free wool level is reached. The declining tendency of prices heretofore the greatest on low grades is now less pronounced, as they have already fallen very near to the London price (without duty), if due allowance be made for ocean freight and having comprising texts they have the profit. buying commissions, together with the possi-ble effect upon foreign prices of an increased demand from this side. On Merino grades the tendency is still strongly against sellers, and the belief prevails that nothing can arrest the downward course of the market in the direction of free wool, except some official declaration that present wool duties will not be interfered with.

The demand for mens' wear, woolens, has

greatly fallen off. Buyers are not disposed to commit themselves to anything but small orders. Duplicate orders come forward with unusual slowness; while rejections of delivered goods and cancellations of previous orders are disagreeably prominent. More reports of closing mills or "Laying off" of part of the looms come to hand as manufacturers run out of orders. None of them deem it safe to pro-duce goods to lay in as stock. Business in dress goods is hardly better than men's wear.
Thus the chances of a lower tariff on foreign woolens are now being seriously taken into consideration by the clothiers, which is not to consideration by the clothiers, which is not to be wondered at, as they are already being ap-proached by salesmen from foreign houses with offers of goods on a lower tariff basis; that is, offers that provide for a reduction in the tariff. Uncertainty as to the future ex-plains the general hesitancy to place orders for woolens, which reacts to an unusual de-gree on the wool market.

Boston, June 26.—There are no new features to report in the market this week. Trade is dull and the situation is very unsatisfactory. Manufacturers are fairly well represented in the market, but they are purchasing only in small lots, and in some cases are buying only sample bags. Values are nominally unchanged, although at the same time it is difficult to give

21; Missouri and Indiana, 20a21; Kentucky and Maine 1-blood olothing, 21; Missouri and Indiana, 20a21.

Texas and Southern Wools—Texas Spring medium (12 months), 15a18; Texas Spring fine, 12a18; Texas Spring ine (six to eight months), 12a16; Texas Spring ine (six to eight months), 14a16; Texas Spring ine dium, 14a16; Carpet, 12a13.

Unwashed and Unmerchantable Wools—Ohio and Michigan fine unwashed, 14a17; Ohio and Pennsylvania unmerchantable, 17a19; Miohigan unmerchantable, 17a19; Miohigan unmerchantable, 17a19; Miohigan unmerchantable, 17a18; fat sheep, fine, 14a16; do, medium, 20a22.

Pulled Wools, Scoured Basis—A super, 45a47; Bsuper, 37a42; C super, 28a2; extras and fine A super, 50a62; Ine combing pulled, 63a47; delaine, 50a64.

California Wools—Spring northern, 16a20; middle county Spring, 14a16; Southern de, 11a14; effective, 9a11.

Oregan Wools—Bastern, fair, 10a14; choice, 15a16; valley nominal, 18a21.

Australian Wools, Scoured Basis—Combing, 50a67; clothing, 60a65; crossbred, fine, nominal, 60; do, medium, 55a65; Queensland combing, 58a65; do, clothing, 60a62; lamb's wool, 60a72. corn, 34; seed, 4

Live Stock.

BUFFALO, N. Y., June 28. — Hogs — Market steady for good mediums and packers at 6.50a 6 55; light grades fully 30 per cent, higher; sales at 6.50; roughs, 5.00a5.00. Sheep and lambs—Market dull, with hardly enough here to quote; sales, few Kentucky lambs, 5.75a6.00.

CHICAGO, June 28. —Cattle—good prime steers, 4.80a5.10; others, 3.50a4.25; Texans, 3.19a4.75; native cows, 3.00a5.75; canners, 1.85a2.89, Hogs—Mixed and packers, 0.05a6.20; heavy, 6.25a6.30; light, 6.30. Sheep—Receipts, 11,000; shipments, 2,800; natives, 3.50a5.10; Texans, 4.25a4.40; Spring lambs, 3.50a6.50.

NEW YORK, June 28.—Poorest to best native corn-fed steers sold at 4.45a5.50; stillers at 4.60a 5.35; Texans at 3.95a4.05; bulls and cows, 2.25a6.00; dressed beef firm at 7a5; per pound for native sides. Veals sold at 8.00a7.75 per 100 pounds; mixed lots, 5.00a6.25; buttermilk oalves, 4.00a 4.85. Sheep sold at 8.00a5.00; lambs, 5.00a7.75; dressed muttons steady at 74a9 per pound; dressed lambs higher at 9a13. Hogs—Market lower, 6.20a6.76.

Cotton.

BALTIMORE, June 28 .- Cotton nominal; mid lling, 84. New Orleans, June 28.—Futures, steady; sales, 18.100; June, blank; July, 7.44; August, 1.44; September, 7.54; October, 7.64; November, 1.71; December, 7.78; January, 7.92; February,

7.44; September, 7.54; October, 7.64; November, 7.71; December, 7.78; January, 7.92; February, 7.90.

New York, June 28.—A slight advance in Liverpool, covering of shorts, and supporting orders gave steadiness to the market in spite of a further decline in silver, tight money, and reports of bank failures at the West and some business difficulties in this city. Some of the operators are disposed to hold off and see what effect the action of the Indian Government in regard to silver will have on the trade of Manchester before engaging in very extensive ventures on each side of the market. Manchester merchants themselves appear to be rather puzzled as to what will be the ultimate result. Prices advanced one to three points, closing steady, with sales of 113,100 bales. Liverpool advanced one to one and a half points, closing steady, with spot sales of 10,000 bales. In Manchester yarns were quiet and steady and cloths dull but steady. New Orleans declined six to seven points, but railied. Spot cotton here was steady and unchanged at 7 15-16 for middling unlands, with sales of 255 bales for spinning and upon speculation. The receipts at the ports were 1,397 bales, against 1,781 this day last week and 1,286 last year. No exports. There was a decline of 1-16 to t at five of the Soutkern markets.

Grain.

Grain.

CHICAGO, June 28.—Brilliant weather and the silver collapse was too much of a combination for grain prices to-day. There was a jump of five cents in the price of flak seed. The IlMnois Seed Company owns practically all the seed in store, which only amnounts to 200,000 bushels compared with 3,013,558 bushels a year ago. Not enough people are inferested in the flax market speculatively to create a sensation. Nobody seems to want wheat. Not only were local longs free sollers, but there were heavy selling orders here from the Morthwest and from St. Louis, while the buying was slow

# AWATCH, A CHAIN, A PAPER, \$1.65.

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Only an Honest Watch and a Great Newspaper for Every Farmer for Less Money than he Can Secure them Anymhere Eise.



In order to put THE AMERICAN FARMER at the top of the list in number of subscribers, we have secured sole control of the output of an American watch factory, which we will dispose of within the next thirty days at less than exert.

This statement does not seem reasonable upon the face of it, but our readers know that the extension of a subscription list to any newspaper involves an enormous expense in advertising, and for other purposes. A new subscriber to any newspaper costs more than the arthur the receiver purpose to the creative of the cre than the publisher receives, owing to the ex-pense incurred in procuring him. It is only subscribers who continue their patronage year after year who are profitable from a pe-

euniary standpoint.
We intend, at any cost, to put the subscription list of THE AMERICAN FARMER as over three hundred thousand and take our place at the head of the list.

We therefore make the above offer of an honest watch, a chain, and THE AMERICAN FARMER for one year for the insignificant sum of only one dollar and sixty-five cents.

we first offered this great premium in our issue of Jan. 1 for \$1.60 for paper, watch, and chain, limiting the time to 30 days. The demand for them has come by thousands. We find that they cannot be produced so cheaply as we had expected. We are, therefore, obliged to increase the price from \$1.60 to \$1.65.

#### DESCRIPTION OF THE WATCH:

This watch is a timepiece guaranteed to run with accuracy. It need only be wound once every twenty-four hours. No key has to be carried, but it winds and sets by a patent attachment shown in the cut of the works. The face, therefore, need not be epened to set it. It is suitable to carry in the pocket or to hang upon the wall in bedroom or parlor. To save space the cuts are slightly reduced in size, the face of the watch being one and seven-eighths of an inch in diameter and fifteen-sixteenths of an inch thick. It is no heavier than an ordinary silver watch, and but a trifle thicker. It has a strong, quick beat and runs in any position, either at a standstill or in motion, and is not affected by heat or cold. It is open-faced, with a heavy, glass crystal. The case is polished and lacquered to resemble gold. This material is frequently advertised as oreide or firegilt. The chain is not shown in the cut. It sells at retail in the country from 15 to 25 cents. A small charm also goes with the chain. A small charm also goes with the chain.

Remember that THE AMERICAN FARMER

comes twice a month at the regular price, when taken alone, is fifty cents a year. We send, postpaid, the watch, the chain, and the paper for an entire year for only one dollar and sixty-five cents.

and sixty-five cents.

Our arrangements for the watch compel us to put a time limit upon this offer. We can only furnish this premium combination to those who order within thirty days. We regret to be obliged to place any limit whatever, but the sum is so small that it will not inconvenience anyone, we trust, to send in his name and subscription price for the premium and paper at once.

dence in our proposition, we guarantee the delivery of the watch in good running order. The watch and chain will be sent, postage prepaid, to anyone who will send in a club of

Chicago Horse Market.

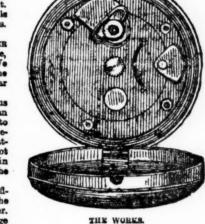
CHICAGO, June 26.—F. J. Berry & Co. report that the receipts of horses last week were light, but there were also few buyers and prices are a shade off. They quote: Streeters, 70.100; 1,100 to 1,300-pound chunks, 85a140; expressers, 150a 200; 1,500 to 1,700-pound drafters, 130a240. These prices are for horses five to eight years old, sound, well broken, and in good fiesh.

New York General Market.

sound, well broken, and in good flesh.

New York General Market.

New York, June 28.—Flour quiet, weak, Winter wheat, low grades, 1.95a2.45; do., fair to fanoy, 2.45a3.45; do., patents, 3.40a4. Southern flour dull, weak; common to fair extra, 2.10a 3.10; good to choice do., 2.15a4.25. Rye flour quiet; steady; 3a2.55. Corn meal quiet, steady; yellow Western, 2.60a2.70. Rye dull, unchanged. Barley mait dull, steady. Peas dull, Feed bran, 75a779; middlings, 80a85; rye feed, 80. Hay, liberal supply, weak salipping, 70a75; good to choice, 80a8. Hops steady, quiet; State, common to choice, 19a22; Pacific Coast, 19a22. Wool dull, unsettled; domestic fleece, 27a32; pulled, 26a37; Texas, 16a20. Heef dull, steady; family, 10a12; extra mess, 7.60a8.50. Cut meats, quiet, steady; pickled bellies, 12 pounds, at 13; pickled shoulders, 5a82; pickled



six yearly subscribers at 50 cents each, and only 10 cents additional money to pay cost of postage and wrapping. Address at

THE AMERICAN FARMER, Washington, D. C.

and cautious. The opening was about the perbushel lower, ruled weaker, prices further declining; for July; for September, held steadier, and the closing was sale from the bottom. The very favorable crop reports and large receipts, together with the action of wheat, all tended to depress corn. The market at the close had lost lail. Provisions are only slightly changed from last night after many fluctuations within a moderate range. Trade was on the whole light and spasmodic.

New York, June 28.—Wheat active; lower. No. 2 red, store and elevator, 70; affoat, 71; aff

In some parts of Russia the snow is preserved in great straw, sand, and manure-covered heaps as a means of irrigat-

ing the land during the Summer heat. There is in Arizona a natural bridge of pure chalcedony. A tree, which in primeval time fell across a chasm, became embedded in the silt of some inland sea and gradually passed through the stages of mineralization until now it is a mass of solid agate.

# FISHING OUTFITS.



ing tackle, and it is no fish story when TRE AMERICAN FARMER says it can supply its sub-scribers with a first-class fishing outfit at a lower figure than can be obtained elsowhere.

One three-piece, light color, nickel-mounted rod, with solid metal reel seat, ash butt and middle joint, lancewood tip, corrugated hand grasp, and put up in muslin bag; one 35-yard nickel-plated reel; one 55-foot linen line; one float and one dozen hooks on gut saells.

Price to subscribers, delivered free.... \$2.50

Outfit No. 2. Outfit No. 2.

Three-piece lancewood rod, in muslin bag;
40-rod multiplying reel, with drag; 50-foot linea
line, and float, and one dozen hooks on gut nells. Price to subscribers, delivered free....... \$3

THE AMERICAN FARMER.

ART SQUARE FLOOR-COVERING. "Floor-Covering as a Fine Art" is the title of recent work by a well-known philosopher of the æsthetic school, and which is all very well as far as theory goes, for who is there that does not like a well-covered floor, and a nice, naty mat? But THE AMERICAN FARMER can give our philosopher points on the practical side of



the question, and just listen how we do ft.
For \$1.50 we will send a beautiful jute For \$1.50 we will send a beautiful jute are square foor-covering, printed on Calcutta jute, in fast colors, fringed at both ends, size 6+x2 feet. There are three colors in the border, twe in the center, and all finely printed. Express charges must be paid by the subscriber. Those wishing a larger art square, size 9x13 feet, capable of covering an ordinary room, one boyet if or \$2.61.

THE AMERICAN FARMER.

# THE FENCE CORNER

His Wants Were Few.

Tramp-Please, mum, would ye be so kind as to let me have a needle and thread? Mrs. Suburb-Well, y-e-s, I can let

you have that "Thankee, mum. Now, you'd oblige me very much if you'll let me have a bit of cloth for a patch."

"Well, here is some." "Thankee, mum, but it's a different color from my travelin' suit. Perhaps, mum, you could spare me some of your husband's old clothes that this patch will match." "Well, I declare! I'll give you an

old suit, however. Here it is.' Thankee, mum. I see it's a little large, mum, but if you'll kindly furnish me with a square meal, mebby I can fill it out."—New York Weekly.

#### The Missing Link.

Little Edith had just been to church for the first time. "And what did you think of it?"

asked her mother. "I didn't like the organ very well." she replied.

"Why not?" "Tause there wasn't any monkey with it."-Harvard Lampoon.



Dressmaker-Do you wish to wear second mourning, Mrs. Marrymuch. Fresh Widow-No it's my fourth hus-

#### Her Mistake.

"Well," queried the Third street woman as she opened the side door about an inch and peerd at the man on the steps.

"You are making a sad mistake. ma'am," he answered.

" How so?" "Why, I'm not your husband, as has been out on a spree all night and is just getting home to promise never to do constituents in the milk, but the constituthe likes again, but a sober, respectable gentleman, who wants to know if you can spare him a cup of coffee and a

#### She Was Easy on the Horses.

Detroit Free Press.

She told a friend about it afterward. "The poor horses seemed all worn don't think half my weight rested on the seat."

This reminds me of the farmer in his wagon on the way to market, who car- constantly observed that the changes ried his pig in his lap, not out of affect- made in the food of the cows have shown ion for the pig, but that Dobbin, be- practically no effect on the chemical tween the shafts, might have less of a load to pull .- Boston Herald.

# Always at Hand.

"Does your teacher get out of temper

"Goodness gracious, no; she has enough to last her if she lives to be 100 years old."-Inter Ocean.



Farmer Jenks-That's a fine colt you have over there, neighbor. Farmer Jones-Yes. It's my boy's. I told him if he would take care of it he

could have it. Farmer Jenks-Ah, I see! Boy's colt and old man's horse! Ha, ha, ha!

# Plenty of Time to Grow.

A hungry man went into a fashionable down town restaurant and gave an order for dinner. Among other dishes, he ordered calf's liver and bacon.

The waiter was absent a long time, and when he served the meal he said, apologetically:

Sorry to keep you waitin', sah, but de calf's liver was out an' we had to send for it, sah."

"But this is not calf's liver; this is cow's liver," said the disappointed customer, turning it over with his fork. "Can't help it, sah. Dat was a calf's liver when we ordered it, suah, sah,"

# Safety Assured.

Old Lady-Oh, I always get so nervous on a railroad. Don't you think we're goin' at an awful rate?

Mr. Illuck—Y-e-s, but you needn't worry, mum; there won't be any acci-

"How do you know there won't?" "'Cause I've got an accident insur-ance ticket."—New York Weekly.

# THE DAIRY.

Fats as a Basis.

The influence of the composition of milk on the yield of cheese is receiving considerable attention from investigators Dr. Van Slyke, of the New York Experiment Station, has made a study of this question, and he finds that from 40 to 93 per cent, of the increase in the yield of cheese was due to the fat that the milk contained. The amount of cheese that was obtained increased as the fat in the milk increased, though the relation was not uniform. He observed that the amount of casein in the cheese increased uniformly with the increase in this constituent in the milk The conditions of manufacture appeared to him to be the sole factor governing the amount of water that the cheese contained. As the casein in all milks is almost invariably present in the same amounts, it is evident that it is the fat of the milk that has the most influence on the weight of cheese obtained, aside from the influence of the water, which is due to the method of manufacturing the cheese. It would seem from this that the milk used at the cheese factor ies should be paid for according to the percentage of fat that it contains instead of paying for it according to its weight. Yet stronger evidence on this point was given at the Canadian Dairy Conference last year, when it was asserted on good authority that extensive experiments had shown that in every 100 pounds of milk every increase of two-tenths of one per cent. of fat yielded an average of three-tenths of one pound of cheese. In other words, as an English dairyman elaborates, out of 100 pounds of milk containing 3.4 per cent. of fat 98 pounds of cheese were obtained, whereas from the same quantity of milk containing 4.1 per cent. of fat over 1081 pounds of cheese were made. In this way, three-fourths of one per cent. of fat increases the weight of the cheese 10 per cent., and in addition adds to its quality. With these figures in mind it is easy to see that there is a time coming when the present system of pooling milk at cheese factories is going to give way to a system that pays for the milk according

#### Breed, Not Feed.

to its fat percentage.

In all the investigations made up to this time the writer does not know of any that differ from the dictum that the composition of the milk cannot be influenced by the feed. It is easy enough to increase the flow of milk and thereby inents of the milk cannot be changed in their relation to each other. These are governed by the individuality of the crumb of bread to stay his stomach till cow. It teaches us that it is breeding cultural industry." the Mayor invites him to dinner." and not feeding that determines whether a cow will be good for butter or not. The cow that will give rich milk is the one whose parents have been noted for that quality. The most extensive experiments in this direction have been made in Denout," she said. "I hated to get on the mark, and the experimenters state that car, but I couldn't help it. Anyway, I in the feeding trials with milch cows out on account of the long-centinued was as considerate as possible, for I sat that they have conducted for five sucdown just as easy as ever I could, and I cessive years, in which 1,152 cows (didon't think half my weight rested on vided into 112 lots on nine farms in ing, so great is the dearth of food and very different parts of their country) have been included, in all cases it has been composition of the milk.

# Uniformity.

The Danes have a well-earned reputation on the European market for the quality of the butter that they make. The secret of their success, according to Prof. Georgeson, lies in the fact that they use pure cultures of cream ferments to ripen the cream before churning it. He does not give a detailed description of this pure culture, further than to say that its value is due to bacteria which in producing the fermentation of the cream give the desired flavor and character to the butter. He states that they have been isolated and artificially cultivated. In Denmark some two or three laboratories are supplying the dairymen with these cultures. The pure culture is used as a starter in the skim milk, and when fermentation has taken place this is again used as a starter for the cream. Instead of ripening their cream by partial, and in many instances complete, souring, as we do, these Danish butter makers are able to fully govern the ripening of the cream by the em-ployment of the ferment that is the cause of the ripening. In this way their butter is always of the same agreeable flavor, and that secures for it a steady and good demand.

# Horns Must Go.

What about horns? They are in gen eral disfavor, and getting more so all the time. The indications are unmistakable that horns must go; that "they are relics of barbarism," uncalled for, unsafe for man or beast; neither useful nor ornamental; cost something and sell | average. for nothing. The verdict is against them, and the question is: How to do away with them? Dehorning is the most summary and wholesale way of suppressing the horn nuisance. The next best remedy is to kill the horn germs before they develop. This is readily done, and has none of the seemingly done, and has none of the seemingly culties appear to be so great that a concruel features that attends the sawing off tinuation of them will lead inevitably to of the full-grown horns. But the only and true way of getting rid of horns is some unforseen circumstances must arise to breed them off by using males of the to avert ruin to farmers. polled breeds. It is astonishing that horns, one of the most striking characing. One has only to select his breed macadamized foad he can pull 10 times These plants are of great value for border

#### Centrol of Quality.

The quality of butter may be influenced by the food, according to some experiments conducted at the Maine Agricultural Experiment Station. The milk from five cows was analyzed and the effect of the feed on the quality of the butter noted during three periods. The practical fact which the experiment makes evident is that a mixture of cottonseed meal or linseed meal with corn meal and wheat bran; especially the cottonseed meal mixture, produced butter less easily melted and of a more solid appearance than did the peas and barley. This indicates that the tendency of butter to melt during hot weather may be controlled to a large extent by the kind of food the cows are getting.

#### Oil Cake as a Food.

Among the foods that may be fed to dairy cattle none had advanced so much in general estimation as oil meal. It is a food that all animals relish, and it seems to give even better results than its rich composition would indicate. As the outcome of two years' experiments with a large number of cows, a European investigator found that every 100 pounds of oil cake substituted for the same quantity of mixed grain gave an increase of 66 pounds of milk; provided the oil cake did not constitute more than one-half of the ration. The same experiments show that oil cake is superior to a mixture of barley and oats for milk production.

#### A Novel Point in Butter-Making.

A good story is told of a lady butter-maker of the old school who was well up to date in knowing the supreme importance of the most scrupulous cleanliness, and of not touching the butter with her hands in the process of manufacture. "What I does is," she said "I puts on a pair 'o my 'usband's white gloves, and makes hall the butter in 'em; then my 'usband has 'em clean for Sundays, as I rinses 'em well."-North British Agriculturist.

#### Foreign Agriculture.

Wm. F. Rankin, a Glasgow pro-visioner, has been fined 30 shillings for selling an American cheese which contained 32 per cent. of fatty matter not derived from milk.

Mr. Martin White, of Balruddery, Scotland, has announced his intention of giving his plowmen a nine hours' day all the year round, with a weekly halfholiday from the end of seed time till the beginning of harvest, and a week's holiday in Summer. In making these generous concessions, Mr. Martin White expresses the decided opinion that, "as much plowing and other farm work can be done in nine hours as in 10 hours, and with less bodily fatigue, so that the shortening of the hours of labor may be attained without injury to the agri-

English farmers are delighted with the discovery of a new hybrid turnip, which is not only very large, but is proof against disease. They call it the

Achilles." In New South Wales both the pasture and the water supply have given ing, so great is the dearth of food and water. A Sydney paper records the fact that 2,500 sheep were lately offered for nothing in the Riverina, New South Wales, but no one would have them, and the animals were consequently slaughtered and their carcases burned. In other cases the sheep have been slaughtered for their skins, as the skins are worth more than the sheep when

Farms were recently leased in the Lothians, Scotland, at two pounds and 15 shillings (\$13.75) an acre, and land suitable for market gardening at five pounds five shillings (\$26.25) an acre. Though an act of Parliament has fixed the weight of a "Stone of hay" at 14 pounds, the Scotch continue to use the

24-pound stone for weighing hay. The drouth has destroyed nearly all the young crops through the Grand Duchy of Hesse, and produced so much misery among the peasantry that it has become necessary to take measures for their relief. The Grand Duke has sent them contributions of fuel, corn and corn meal.

Queensland, Australia, is trying the experiment of sending semi-tropical fruits to Canada. The first instalment arrived at Ottawa June 22. The oranges were found to be in excellent condition, but the pine apples did not fare so well, either from being picked before too early, improper packing, or from some other cause.

# English Crop Report.

The London Times recently published position of the British crops. Cereal crops are generally below the average in England and Wales, but are good in Scotland. English and Welsh wheat age. Other crops are far below the

The feeling in England and Wales in regard to the situation is generally de-pressed, and it is stated that this has been the worst season for Winter feed. The drouth seems to have completely dried up the crops. The Times sums up the whole situation by saying the diffigeneral agricultural disaster, and that

for crossing and persist a few years to establish the polled character in the herd.

as much; on a plank road 25 times as plants. As high as a pint of strawber-ries has been picked off of one bush in November in New York State. The

# THE GARDEN.

Pluckings. Currants and gooseberries are easily propagated from cuttings.

A common mistakinis to suppose that all foreign grapes are easily Winter killed. With a little protection they can be Wintered as well as the native varieties, and will ripen even in our Northern States.

The first instalment of the Delawar crop of blackberries was shipped from Laurel June 22. The yield, it is said, will be very light, but the almost certain prospect of an immense peach crop consoles the Delaware people.

#### STRAWBERRY NOTES.

An Interesting Chat on the Value the Different Varieties.

EDITOR AMERICAN FARMER: The Shuckless strawberry may prove to be very valuable; still, it cannot be called a novelty, as Alpine strawberries are shuckless.

Early marketable varieties of straw berries will always prove valuable, and we welcome Meek's Early as a valuable variety. It is said to be the perfection of aroma and sweetness among large strawberries. It is a vigorous, attractive fully dealt with by the following

The Greenville strawberry, so favorably spoken of by the various experiment gins to steam sprinkle over it flower of stations and by private individuals, a splendid grower, more so than the Bubech. It is large in size, very sweet, and delicious, and of a dark, red color.

A leading Ohio strawberry grower, when wishing to rapidly propagate a variety, places the plants in a circle of about four feet in diameter, and then places a barrel of manure with holes around the lower edge, and from time to time, turns water in the barrel, and this furnishes the best of plant food. It is stated that by this method it is possible to propagate 1,000 plants from one in a single season.

If you contemplate going into the strawberry business, try and build up a good home market, instead of raising to ship to distant markets. You will find it far preferable. Many of the varieties of strawberries adapted to shipping pur-poses are very poor and inferior in quality.

I lately received a price list from a man who is introducing a new variety of strawberry; from the description and testimonials given, I do not see anything special to recommend it. The price per dozen is entirely out of the reach of the strawberry experimenter. Its record as given by the introducer himself will not begin to equal many of our old tested varieties. When a new strawberry is introduced, it should have some special characteristic to recommend it. The usual price, \$2 per dozen for new and untested varieties, I think, is also too much; about \$1 would be nearer right. They will then be more extensively tested and disseminated for trial. The new strawberry, Edwards's Favorite. introduced by a Colorado strawberry grower, is introduced about right as regards price. I believe 50 cents per dozen is what the introducer asks for it. very largest size, of a beautiful, attractive color, blossom perfect, and quality the best. From what I can hear and learn of this variety, it has a great future before it. Specimens have measured eight and one-quarter inches in circumference; its fruiting propensities is simply im-

mense. The Princess of Minnesotta is said to have yielded at the rate of considerably over 1,000 bushels to the acre. The Triomphe De Gand strawberry in Sacramento County, this State, has yielded \$2,000 worth of fruit per acre. A strawberry grower in Fresno County, this State, wrote me last Fall that he picked 6.000 boxes of Jessee strawberries from one-fourth of an acre. As I previously stated, a new strawberry must have something very special to recommend it, and should be introduced at a reasonable price.

The Wood strawberries are very highly spoken of by S. Morgan, editor of the Horticultural Times, London, England. The Wood strawberries have been known and cultivated there for hundreds of years. For preserving purposes they are said to be superior to any known varieties, as they retain their exquisite Woodland flavor. These Wood strawberries of England are Alpine strawberries, and very similar to the wild Alpines of California, of which the most notable are the California Green Alpine, Red and Gold Alpine, Chilensis, and Harvey strawberries, etc. I do not know whether the California wild Alpines would equal the European varieties for canning and preserving purposes or specially compiled reports of the present not, but presume that they would. The position of the British crops. Cereal Sierra wild strawberries, when better known, will be extensively cultivated, because they are very long-season bearers, very highly colored, and possessed of is 17 per cent., English 26 per cent. a rich, aromatic flavor, and are deliand Welsh 14 per cent. below the aver- ciously sweet. In fact, I know of no large varieties of strawberries that can equal them in flavor and aroma. Sierra Alpines have many colored blooms, some pure white, others yellowish white, and some whitish red. The Wood Alpines commence blooming as early as any and continue until the latest. The Alpines are wonderful bearers in California, and in Southern California bear all season long. The Flagaria viridis of Sweden is said to have green flesh, and possesses a flavor similar to the nectarine. The bush Alpines, the red and white varieties, are wonderfully prolific yielders of delicious berries of small to me-A horse can draw on the worst kind dium size. The bush Alpines are destiteristics of all common or scrub cattle, of earth road about four times as much should yield so readily to anti-horn breed- as he can carry on his back. On a good solely by dividing the roots and by seed.

Red and White Alpines are unrivaled strawberries for table use, being very richly flavored and highly colored. All varieties of Alpines that I am acquainted with are smaller than the common strawberries, but are far greater yielders and finer flavored.—S. L. WATKINS, Grizzly Flats, Cal.

#### Oucumber Culture.

If space is devoted to the cucumbe and a market is near at hand, a good and clear profit can be made from its culture. Up North, in the leading cities, there are immense pickling concerns, and farmers who live in that locality make an excellent margin by growing the vegetable for the factory's consumption. The seed for the late varieties may now be sown and continued until the end of the month. The cucumber thrives best in a rather moist, sandy loam, and with late vines especially will do better if planted level than if planted in hills.

The plants are very tender and the soil should be made rich by decomposed manure and stirred thoroughly to a 16inch depth or more. The red spider, thrips, and green fly are the worst enemies of the plant, but they can be kept down by regular fumigating with tobacco and careful syringing. The striped cucumber beetle may be successeffectual remedy: Take unslaked lime, add enough water to slake; when it besulphur at the rate of one-half pound

bushel of lime; cover and watch tuat the sulphur does not take fire-if it should, add a little water; when the lime is thoroughly slaked mix well and apply by dusting on the leaves rather sparingly. This mixture should be used while fresh.

#### Potato and Ladybugs.

EDITOR AMERICAN FARMER: THE AMERICAN FARMER readers please observe. Two years ago I planted about one acre of potatoes, and as the plants came out of the ground, of course the bugs were ready to deposit their eggs by the thousands. So in about one week l sprayed 12 rows with Paris Green, and in another week I thought best to go over all my potato ground; but to my astonishment there were no more slugs hatched out, and but few more old bugs to be seen. I was looking for the cause but 12 and 13 cents a quart. of the eggs not maturing. I saw quite a few of the little red and black-specked ladybugs running up and down the vines, and where there were one to three of the ladybugs there were no more eggs hatched

out. I did not have to spray any more that year, and had a yield of about 200 bushels per acre. Last year there was but very few ladybugs; hence, I had plenty of the potato bug. This year so far (June 6) the ladybug is more plentiful, so trouble of spraying, as I have sown five or six acres. The ladybug is propa-gated for the purpose of destroying the larva or rosebug in England. I wish to GILBERT POWLISEN, Ensign, Mich.

# Nativity of the Potato.

the potato. Its nativity, original place in the kingdom of nature, and several other things regarding it are still open questions. As to its nativity, the weight of argument seems to favor the tropical or sub-tropical regions of America. There is a tradition that the vines once grew to monstrous size, and that the 'balls" were of the "bigness of melons,' and at that time the roots were not the enormous crops gathered by their tubers, the edible parts growing among rivals. So long, however, as the Chinathe branches. It seems they were first introduced into Europe in the year 1565. Haskell's "Roots and Wild

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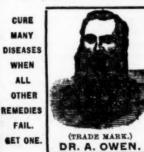
with you. CO. Illness frequently results from changes of food, water, climate, habits, etc., and the remedy is Beecham's Pills. **ĕ**000000000 ≈ **ĕ** 

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a queer, bulbous root out of Amerika which some called a 'bodado,' while others, who had heard the Peruvians mention it, spoke of it as a potato." Periam's "Cyclopedia of Agriculture" said that Sir John Walnkins found it growing wild near Santa Fe de Bogota, at an altitude of 8,000 to 13,000 feet. He also says that it was " fetched out of

#### Keep the Weeds Down.

Louis Republic.

America" at about the time settled upon

by Haskell, viz., in the year 1565 .- St.

It is estimated that weeds draw so much nutriment from the earth that the same amount represented in vegetables would be sufficient to supply the whole population of the country for one season. This may startle some of car readers, but we believe it to be true. This is the season when the weeds begin to appear. The harder you treat them the better it will be for both you and the crops. Peter Henderson has aptly said that a man will hoe and rake over six times the surface of the soil when the weeds are quite small than he would do if the weeds were six inches higher. Keep all crops clean and use the hoe with plenty of muscle. Let the rake

#### North Carolina Huckleberries.

North Carolina huckleberries are now arriving in large quantities, and bring fine prices. Some business men of the State say that the huckleberry crop is of more value to the State than the cotton crop. Prices last week ranged from 10 to 15 cents a quart, wholesale. Maryland huckleberries did not seem to be so highly esteemed, as they brought

#### Corn Raising in California.

Fay G. Flint, a highly prized cor-respondent at Rainbow, Cal., writes: our climate for corn is peculiar. During the rainy season it is too cool for growing corn, though not so cold as to be hurt with frost or by freezing. Our time for planting corn is really in April, but from that time on to maturity we can generally count that no rain of consequence will fall; thus the crop has to think they will help us out of the depend entirely upon the wonderful power our soil has of retaining moisture and from the ocean fogs, which of course helps very much. We are 16 miles, air line, from the Pacific Ocean, elevation hear from others through this paper. | 1,080 feet; consequently we do not get. the fog that will entirely support corn, as is the case with those districts in closer proximity to the mighty deep. There is as much mystery as history have seen 50 bushels of corn from land connected with the common tuber called | not so good as mine but in the fog belt.

# FOREIGN FARMERS.

The Chinese Colony of Agriculturists on Long Island.

The farmers are respected by their neighbors who follow the same calling, and who can never quite recover from the amazement produced by observing men do not enter into direct competition there is no complaint. The Chines farmers find so much more profit in cultivating for their own people that they do not bother with common vegetables. It looks funny to see a Long Island

landscape with Chinese trimmings. The farm hands, with one exception, stick to their native garb. Wide, mushroom-shaped hats of braided bamboo shelter them from the sun and rain alike, while the blouses, wide trousers, and junkshaped shoes of their native land add to the uniqueness and out-of-placeness of their appearance. One fat farmer, indeed, who took great delight in mimicking the artist as he drew his sketches. wore a coat of sky-blue silk, wadded and quilted, and at a distance looked like a mandarin taking a stroll, so plump was his form and so dignified his movements. Somehow the Celestials do not find it necessary to hurry. They keep moving in the same monotonous, uninteresting way from the beginning to the end of their task. There is no excitement and no hustle about them. The nervous Irishman who works in their company puts his hoe into the ground three times to the Chinaman's once, but he also stops to lean on the handle at regular and frequent intervals, while the Chinaman keeps on like a machine. Scattered about in the fields lie many

big, round earthen jars imported from the Flowery Land. These receptacles are used in gathering and preserving the crops. They also help out the land-scape. Each will hold about two bushels, and in China the rice gatherers employ them in the harvest and for storage after the crop is gathered in. In Astoria they serve as every sort of a receptacle.

The farming is carried on entirely by hand. There is no plowing nor harrow ing; the spade, the hoe, and a slender trowel are the only utensils used. The ground is never allowed to remain in repose. The beds are about seven inches high, with narrow paths between them, and the process of cultivation is forever going on. Every clod is beaten fine, and the soil is not permitted to cake No stimulus is left unemployed to encourage the vegetable charges. If a New England farmer were to devote a tithe of the attention to his fields that the Celestial does to his there would be no more complaint of the poverty of the When writing mention t is paper.

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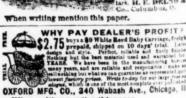




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